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ABSTRACT

Description, data, and conclusions are presented for a 3-year career education program designed to assist the Lincoln, Nebraska, community and schools in implementing career education by providing leadership in developing a cooperatively designed plan and by providing management and support services to assist participants (cooperating educational agencies, businesses, industries, unions, governmental agencies, parents, and students) in executing the plan. Objectives, procedures followed, and project results and accomplishments are reported in detail with focus on activities related to needs assessment, systematic planning for curriculum infusion, staff development, community resource system, curriculum center, curriculum materials at all levels, career information centers, pupil data and monitoring system, assessing guidance needs, individualized career planning, and placement. The report includes the final evaluation report, which covered accomplishments of project staff, career education activities provided for students and the extent of student participation in the career education activities, and student outcomes associated with the career education activities. Major findings reported are these: (1) The project developed and implemented a number of mechanisms to support the career education efforts of teachers and schools, (2) the project has resulted in a significant increase in the number of career education activities within the district, and (3) there were no significant changes in the 10 student outcome measures incorporated into the evaluation design, i.e., students attending career education target schools did not differ from students attending control schools and there were no systematic differences between 1975 and 1976. Appendixes contain supplemental materials for the evaluation report. (TA)

FINAL REPORT

1976

LINCOLN CAREER EDUCATION PROJECT

Project No F7136VW
Grant No OEG-9-73-5290

June, 1973 - June, 1976

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Submitted by
Lincoln Public Schools
John Prasch, Superintendent
Carl Spencer, Project Director

August, 1976

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BOOK 1 FINAL NARRATIVE REPORT OF THE LINCOLN CAREER EDUCATION PROJECT

This volume contains Book 1 only. The other books listed here are bound separately and each contains its own table of contents.

LISTS OF TABLES AND ILLUSTRATIONS

Tables and Charts presented in the evaluation report are integrated into the narrative and are not listed separately here.

Major exhibits of project developed material are published separately as Books 2 through 5 of this report. They are listed in the Table of Contents on the previous page.

SECTION 1

SUMMARY OF REPORT

A. Time Period Covered by Report

This report covers the entire duration of the project, from June 11,1973 through June 10, 1976.

B. Goals and Objectives of the Project

1. Student outcomes intended

As the result of the successful completion of the career education program in the Lincoln schools, students will

1. be able to make career decisions by knowing about a wide range of career possibilities and about their own interests and abilities in relation to them
2. have effective work habits, and positive attitudes toward work
3. have capabilities and skills useful in the world of work
4. be prepared upon leaving school to undertake entry-level employment, or further training or education.

2. Overall Process goals of the project

The purpose of the Lincoln Career Education project was to assist the community and its educational system in implementing career education by

1. providing leadership for the development of a cooperatively designed plan in which existing structures and services are integrated with necessary additional structures and services to achieve an improved program for delivering career education to youth
2. providing management and support services necessary to assist participants (cooperating educational agencies, businesses, industries, unions, governmental agencies, parents, and students) in executing the plan.

3. Supporting Product and Process Objectives

In order to achieve the overall goal of the project, the following product and process objectives were adopted:

1. To conduct a needs assessment in the Lincoln schools with particular emphasis upon career development needs, and to publish the results for use in planning for career development and other programs.

2. To assist all Lincoln schools, with emphasis upon high schools, to plan for and implement career education program activities by infusing them into the regular curriculum.

3. To conduct and to assist schools to conduct staff development activities with all school staff members which will increase their understanding of career education concepts and their ability to carry out career education activities in their teaching and guidance functions.

4. To assist school staff members and students to make effective use of community resources in career development by establishing and maintaining a system for locating and cataloging community resources, making this information available to staff and students, assisting them in scheduling resources, and providing training and guidance in their effective use.

5. To establish and maintain a curriculum center in the Central Media Center which will (a) collect and catalog existing career education professional and instructional materials, (b) evaluate those materials and distribute them to school staff, (c) supervise the construction of curriculum materials for career education in local schools, and (d) assist teachers to make effective use of available instructional resources.

6. To make available curriculum materials which infuse career education at all grade levels in all subject areas.

7. To assist each school to establish a system for collecting, filing, and providing career information to students in such a way that students may interact with the information in formulating career plans.

8. To assist the district to improve and maintain a pupil data and monitoring system including information about (a) mastery of basic skills, (b) mastery of career education outcomes, (c) achievement and other test results, (d) physical, biological, and psychological data and to present the data in such a way that it may be used by counselors and students in formulating career plans.

9. To assist the district to assess the career guidance needs of students, to develop a guidance program with appropriate emphasis upon career development, and to develop and implement a staff development program and other procedures necessary to install the improved program (for which the teacher-advisor model is assumed to be the model.)

10. To assist the guidance department to establish and maintain a system by which students may assess their values and qualifications as a part of individualized career planning.

11. To assist schools to develop and install placement programs which result in (a) in-school students being placed in short and long term curriculum embedded learning/working experiences and (b) exiting students being placed in appropriate next steps in their career plans, whether it be full or part-time employment or further training or education. (This objective was the goal of the Placement Component, the state-funded portion of the total project.)

12. To manage the project effectively and efficiently, using systematic planning and making data-based decisions insomuch as possible.

C. Procedures Followed

The project planned a change-support strategy rather than a product-implementation procedure. That is, resources of the project were allocated to assist existing agencies (schools, departments, classrooms, etc.) to adopt the goals and principles of career education and implement them as an integral part of the operation of their particular element of the educational system; the project did not construct or adopt any one particular system for delivering career education and try to get program operators to adopt it. Where specific career education program activities were developed and disseminated (i.e. the Community Resource System) the effort took place under the auspices of a "task force" composed of teachers, administrators, counselors, community representatives, and project staff.

Project staff were assigned to each high school and some feeder junior high and elementary schools. These Career Education Coordinators were to (1) assist each school to develop and implement systematic plans for infusing career education into the programs of the school, (2) work directly with some students to assist in their career development, (3) participate in district-wide career education development activities of the project. During the latter phase of the project these coordinators were supported half-time by the high schools in which they were stationed.

Other project staff were assigned to support services in the areas of staff development and curriculum development, operating curriculum materials center, developing and operating Community Resources System, Career Guidance program, assisting in development of systematic infusion plans, and developing and implementing placement services.

As it was originally conceived the project was a single effort receiving funds from both the state and federal share of Part D allocations. State money provided resources for "placement" activities. Placement was broadly defined to mean preparing students to make successful steps in their career development and to actually assist them to make those steps where possible. Placement included assisting students to make use of work experiences--paid and unpaid, long and short term--with the major qualification being that these experiences be based in the curriculum plans for each student. It was also assumed that placement included helping students get ready to make the next step--therefore many "guidance" activities such as clarifying work values, making career plans, and developing the skills of locating and obtaining jobs would be included. During the third year of the project Placement was narrowly defined as those services provided to assist exiting students to obtain employment. This narrowing of the scope of the Placement Component and the accompanying 50% cut in budget forced a contraction of the total work of the project during the third year. Rather than moving ahead with additional junior high schools, the project dealt with all high schools and all elementary schools, limiting its attention to Goodrich and East Junior Highs. Work with community resources was also somewhat curtailed. However, in schools in which the project had been active the first two years, career education activities increased both in quantity and in quality as a result of local staff efforts.

At the central level the project supported efforts of district curriculum consultants, special education staff, and guidance staff to infuse the principles and content of career education into the program development and staff development activities carried on with local school staff under the decentralized system of the Lincoln Public Schools.

D. Results and Accomplishments

STUDENT OUTCOMES

The Career Maturity Inventory (CMI) published by McGraw-Hill and the Assessment of Career Development (ACD) published by Houghton-Mifflin were used to measure student outcomes. A total of 10 scores were generated from the ACD and the CMI. They included (1) Self-Appraisal, (2) Occupational Information, (3) Goal Selection, (4) Planning, (5) Attitude (all from the CMI), (6) Occupational Characteristics, (7) Occupational Preparation Requirements, (8) Exploratory Occupations, (9) Career Planning Knowledge, and (10) Career Planning Involvement (from the ACD). Data was collected at both the 9th and 12th grades in both 1975 and 1976. The results indicate that there were no significant differences between either students attending career education target schools and students attending control students. There were also no significant differences between the Spring 1975 scores (the end of two years in the project) and the Spring 1976 (third year) scores.

OVERALL GOAL OF THE PROJECT

Through the mechanism of systematic plans for career education, many schools and most of the departments of the central office have incorporated career education goals and activities into their on-going structure and work. A community-wide structure has also been formed through the Community Resource System by which community resources become an integral part of the instructional program. Dialogue and planning continues among K-12 schools, post-secondary educational and training institutions, labor, business and industry, governmental agencies, parents, and students through advisory committees and task-forces.

SUPPORTING PRODUCT AND PROCESS OBJECTIVES

(1) Needs Assessment

Goals of the district were ranked and evaluated by staff, students, and the community. Career education goals were ranked high by all groups, but higher by students and the community than the staff. Staff also believed that achievement of these goals was more satisfactory than did students and the community. Data from this study were used in planning and staff development activities. Needs Assessment procedures are now a part of the on-going program of planning in the district.

(2) Systematic Planning for Infusion

Each participating school began with a plan to implement career education. Each year these plans become more detailed and complex. Many school plans called for similar plans from individual departments, teams, and teachers. Plans were constructed in central office for Special Education, Instructional Division, and to a lesser extent, the Guidance Department. The Superintendent now requires each school to identify overall goals and high priorities, and submit plans for reaching them, including career education.

(3) Staff Development

Both formal and informal staff development activities took place in each school and on a district wide basis as well. In formal sessions staff were introduced to concepts and activities of career education. In planning sessions they attempted to implement these concepts in their own work. In over-the-shoulder sessions project staff offered assistance in specific problems. On a district level, workshops were held for leaders in math,

science, social studies, art, English, foreign languages, and guidance. Other workshops were held in areas of use of interest and aptitude tests, use of community resources, providing sex-fair guidance and instruction, constructing career education learning units, etc.

(4) Community Resource System

A catalog of over 400 resources was published to supplement those already available to schools. During the second year of the project alone the system assisted in organizing the use of community resources for more than 5700 students. Materials were published and numerous workshops held to help teachers make effective use of these resources. The service is now a part of the Media Network of the district.

(5) Curriculum Center

Over 2000 items have been received, evaluated by project staff and teachers, and cataloged in the career education media collection. These materials will become a part of the state-wide resources under the state plan for career education now being formulated.

(6) Curriculum Materials for All Levels

Major materials at elementary level included Valuing Approach to Career Education; Learning Centers combining career education, multi-cultural education, and personal/social growth; and general infusion into curriculum, especially activities emphasizing use of community resources.

At the junior high level, major materials were Project DISCOVERY, a multi-media activity based set of simulated work situations; career development activities for use in the teacher-advisor program; and an exemplary career education field experience to be used as published or as a model.

In senior highs major materials were Media Now (career education in communications, delivered through project approach) and exploration curriculum in areas of food service, recreation and hospitality, world of business, etc.

In the general sense, the project assisted in construction of many units and learning activities by individual teachers and departments. Stimulated by the project, the district has embarked on a five-year program to teach BASICS to all teachers and to teach teams of teachers advanced skills in curriculum writing. The project's role in curriculum in the district in the past five years has been pervasive.

(7) Career Information Centers

Considerable district as well as project funds have been invested in each high school and junior high which became a part of the media center, integrated into the guidance program, formed into travelling resource units, or all three. Plans are underway for a sequence in career/educational planning to be required of all 10th graders, and a computer-assisted guidance program for all high school students.

(8) Pupil Data and Monitoring System

A scope and general sequence of career education objectives has been identified for the district and continuing effort is being made to include career education objectives in the system for collecting student data and providing it to students, teacher/advisors, teachers, and parents.

(9) Assessing Guidance Needs of Students

The Priority Counseling Survey was used to provide specific information about students and assessment of the general program. A full-scale study of the guidance program was completed in the summer of 1976 and implementation of its recommendations is the first priority of the Guidance Department for 1976-77. Career Education concensus will be favorably addressed during this implementation phase.

(10) Individualized Career Planning

Many staff members were trained to use the Vocational Exploration Group, a two-hour packaged guidance sequence to assist students to clarify career objectives and make career plans, and at the same time learn a process which can be used later for the same purpose. Interest and aptitude tests have been examined and made available to guidance staff, and other special programs sponsored, such as the presentation on apprenticeships made by Lincoln labor union officials. Further efforts to provide career planning assistance will be developed as a part of the implementation of guidance study.

(11) Placement

Job counseling was provided to several thousand high school students, and direct placement services given to hundreds. The model developed during the last year of the project will be continued in all high schools in the following years.

(12) Management

Principles of systematic management were employed. Long and short range of work were constructed, implemented, and revised. Staff members analyzed the goals of their work and context in which those goals were to be achieved and then constructed systematic procedures for achieving their goals. These plans were basis of regular sessions between staff members and the director. When developing new materials or activities attention was given to careful specification of the objectives and rationale, and written drafts were made of successive versions to facilitate clear communication. The project emphasis upon goals-based planning and specification of tasks and activities has influenced other district efforts.

D. Evaluation

The three year evaluation focused on a) the accomplishments of project staff, b) the career education activities provided for students and the extent of student participation in the career education activities, and c) the student outcomes associated with the career education activities. The major evaluation findings are:

1. The Career Education Project developed and implemented a number of mechanisms to support the career education efforts of teachers and schools.

The accomplishments of the career education project were listed in an earlier section of this summary. Tangible accomplishments include establishment of a career education curriculum center, a community resource file, and building level career education plans.

The career education project has also provided inservice to a large number of teachers over a three-year period. Seventy-six percent of the 284 teachers surveyed in 1976 indicated that they had participated in a career education inservice. Sixty-three percent indicated that they had spent nine or more hours in career education related inservice activities. The percent of teachers receiving inservice during the 1974-75 school year was approximately the same as the percent receiving inservice during the 1975-76 school year. However, a smaller percent received extensive in-service. For example in 1975, less than 20% of all teachers participated in as many as nine hours of inservice.

2. The Lincoln Career Education Project has resulted in a significant increase in the number of Career Education activities within the district. Both the number of activities and the number of students that participated in career education activities increased steadily from 1973-74 to 1975-76.

Three surveys were conducted to estimate student participation in career education activities. The first was administered in Spring 1974, the second in Spring 1975 and the third in Spring 1976. In 1974 and 1975, approximately 75% of the teachers surveyed reported implementing one or more career education activities. In 1976, 85% reported implementing one or more activities. Nineteen of the teachers reported that they implemented career education activities in all seven of the goal areas surveyed. The percent of teachers that reported implementing activities in each of seven goal areas ranged from a low of 27% to a high of 69%. The number of students participating ranged from approximately 3,000 to 13,000. Nearly all the high school students in the district participated in at least one career education activity for each goal area with the exception of Goal 7, Job Placement.

3. There were no significant changes in the ten student outcomes measures incorporated into the evaluation design. Students attending career education target schools did not differ from students attending control schools and there were no systematic differences between 1975 and 1976.

The two instruments used to measure student outcomes were the Assessment of Career Development (ACD) and the Career Maturity Inventory (CMI). Each instrument was subdivided into five subtests. Although there were no systematic significant differences between career education and control groups on either of the two tests, generalizability of the results depends on the answers to three questions: a) Were the instruments used in the evaluation appropriate?, b) Were the sampling procedures appropriate?, and c) Were the control groups incorporated into the design appropriate for the career education evaluation?

The two instruments used were both recommended in the Handbook for the Evaluation of Career Education Programs. The ten subtests were identified in the Handbook as appropriate for 11 of the 18 career education goals. The two instruments are, however, more cognitive than affective, more hypothetical than real-life. The career education project emphasized attitudes towards career and the actual development of career plans. However, none of the other instruments listed in the Handbook more closely paralleled the goals of the Lincoln Career Education Project.

A multiple matrix sampling plan was used to collect all student data. The data was used to estimate the mean and variance of students attending the career education target schools and students attending control schools, as well as for each individual school. Data was collected by school. Not all students within a school participated in the same career education activities and not all schools implemented the same sets of activities. It was therefore, impossible to determine what percent of the students responding to each subtest actually participated in a career education activity designed to effect the outcome. The problem was not caused by the use of the matrix sampling plan. Even if a census testing plan had been used, the evaluators would still not know which students participated in what activities. The problem could have been circumvented either by (1) assigning students to activities and testing only the actual participants or (2) testing every one on all subtests and closely monitoring participation in each activity.

The third possible source of contamination were the control groups. Only one control school was available at the senior high school level. The other four high schools were (self) selected as career education target schools. Even then, a significant number of teachers from the control schools participated in career education inservice programs and all teachers in the control schools were free to use central office career edcuation materials. The only difference between the career education and control school was the level of support. Target schools had half-time coordinators assigned to help in career education planning and to support local teachers. The control group problem was not as severe at the junior high level. Three control schools were selected. Junior high teachers in control schools, however, also had access to district-wide career education resources including inservice programs.

Analysis of the three confounding factors in the evaluation leaves the generalizability of the student outcomes data open to question.

Overall the Lincoln Career Education project resulted in an increase in both emphasis on the material/support for career education in the district. Each year of the project more students particiapted in a greater number of career education activities. Participation in the activities did not however, seem to affect student outcomes measures.

SECTION 2

BODY OF THE REPORT

A. Background

The Lincoln Career Education Project was a response to several sets of needs. On the one hand there was a set of general needs, national in scope, but felt in Lincoln as well as in other areas of the country. These needs were identified early in the Career Education movement by such spokesmen as Hoyt and Marland, and included such items as the following:

1. lack of adequate preparation for work, as shown by evidence from employers and inability of many to get jobs
2. lack of adequate career decision-making as shown by the high percentage of persons dissatisfied with their jobs, high first-year turnover in jobs and lack of clarity about goals in many secondary and post-secondary students
3. lack of employment and under-employment of women, minority groups, and teenagers
4. poor understanding of the expectations of employers and the economic facts underlying employment, again as shown in testimony of employers
5. depreciation of the work ethic as evidenced in the testimony of young people who depreciated it, and the not-always-so young who avoided it

The etiology of each of these needs is long and complex and in many cases the cure for the problems represented are far beyond the scope of the school system. But nonetheless there is much the educational system could be doing which it is not now doing to alleviate some of the symtoms if not completely solve the problems.

Another set of needs more specific to Lincoln and its educational program was related to those broader statements. As a part of a goals ranking procedure included in a broader needs assessment effort, students and parents stated that learning about careers was not receiving enough attention in our schools. The complaints of business people about poorly prepared workers and poorly motivated workers were just as prevalent in Lincoln as in other places. Teachers in Lincoln schools had used resources of the community for years, but the potential had barely been tapped. Various programs combining work and study had been operating for years, but the number of students was small and the correlation between the work experience and classes was questionable except in the case of co-op vocational courses. In the guidance program, counselor-student ratios were increasing, elementary counselors were being phased out, and guidance classes were decreasing. Teachers were not well acquainted with work outside of the classroom and students were only infrequently getting information relating what was being taught to its use in the working world. In some areas student drop-out rate approached 40% of the population and in other areas 80% of the students indicated they planned to attend college, even though more than one-third had no career plans. There was great interest in the school by business people and other citizens, but few direct relationships between the school and the world of work existed.

Thinking of these needs, the Career Education Project took as its goal to assist the community and our educational system to establish machinery to improve our efforts to prepare youth to make intelligent life-work choices, and to help them implement those choices in ways satisfying and productive for each individual and for the community as a whole.

B. Goals and Objectives of the Project

STUDENT OUTCOMES INTENDED

As the result of the successful career education program in the Lincoln schools, students will

1. be able to make career decisions by knowing about a wide range of career possibilities and about their own interests and abilities in relation to them
2. have effective work habits and positive attitudes toward work
3. have capabilities and skills useful in the world of work
4. be prepared upon leaving school to undertake entry-level employment, or further training or education.

These characteristics of students serve as the standard by which to judge the merit of individual program activities and of the success of any program as a whole undertaken or supported by the Lincoln Career Education Project.

OVERALL PROCESS GOAL OF THE PROJECT

The purpose of the Lincoln Career Education Project was to assist the community and its educational system in implementing career education by

(a) providing leadership for the development of a cooperatively designed plan in which existing structures and services are integrated with necessary additional structures and services to achieve an improved program for delivering career education to youth, and

(b) providing management and support services necessary to assist participants (cooperating educational agencies, businesses, industries, unions, governmental agencies, parents, and students) in executing the plans.

SUPPORTING PRODUCT AND PROCESS OBJECTIVES

In order to achieve the overall goal of the project, the following major product and process objectives were adopted:

1. To conduct a needs assessment in the Lincoln schools with particular emphasis upon career development needs, and to publish the results for use in planning for career development and other programs.

2. To assist all Lincoln schools, with emphasis upon high schools, to plan for and implement career education program activities by fusing them into the regular curriculum.

3. To conduct and to assist schools to conduct staff development activities with all school staff members which will increase their understanding of career education concepts and their ability to carry out career education activities in their teaching and guidance functions.

4. To assist school staff members and students to make effective use of community resources in career development by establishing and maintaining a system for locating and cataloging community resources, making this information available to staff and students, assisting them in scheduling resources, and providing training and guidance in their effective use.

5. To establish and maintain a curriculum center in the Central Media Center which will (a) collect and catalog existing career education professional and instructional materials, (b) evaluate those materials and distribute them to school staff, (c) supervise the construction of curriculum materials for career education in local schools, and (d) assist teachers to make effective use of available instructional resources.

6. To make available curriculum materials which infuse career education at all grade levels in all subject areas.

7. To assist each school to establish a system for collecting, filing, and providing career information to students in such a way that students may interact with the information in formulating career plans.

8. To assist the district to improve and maintain a pupil data and monitoring system including information about (a) mastery of basic skills, (b) mastery of career education outcomes, (c) achievement and other test results, (d) physical, biological, and psychological data and to present the data in such a way that it may be used by counselors and students in formulating career plans.

9. To assist the district to assess the career guidance needs of students, to develop a guidance program with appropriate emphasis upon career development, and to develop and implement a staff development program and other procedures necessary to install the improved program (for which the teacher-advisor model is assumed to be the model).

10. To assist the guidance department to establish and maintain a system by which students may assess their values and qualifications as a part of individualized career planning.

11. To assist schools to develop and install placement programs which result in (a) in-school students being placed in short and long term curriculum embedded learning/working experiences and (b) exiting students being placed in appropriate next steps in their career plans, whether it be full or part time employment or further training or education. (This objective was the goal of the Placement Component, the state-funded portion of the total project.)

12. To manage the project effectively and efficiently, using systematic planning and making data-based decisions insomuch as possible.

C. General Project Design

OPERATIVE PRINCIPLES

A task force made up of community persons, school staff, and central office staff was appointed by the Associate Superintendent for Instruction to plan the project. Carl Spencer, who became the director of the project, was appointed to write the proposal, which took the form of a management document. A number of criteria were adopted by the planning group which shaped the design of the project:

(1) The project would deal with career education from K-14, but the emphasis would be on the high schools--primarily the four public and Pius High schools. A feeder junior high and a feeder elementary school would also be target schools during the first year of the project, but the plan called for involvement of all schools by the end of three years. The potential total was, then, 11 junior highs and 36 elementary schools as well as 5 high schools, not counting the Lutheran schools who chose not to participate in the project. The total student body of these schools amounted to approximately 32,000 students.

(2) The project would not buy or develop career education programs and attempt to get schools to install them; rather it would support efforts of schools and district level staff to incorporate career education objectives and activities into their ongoing programs. There were several bases for this decision: (a) well developed and tested career education programs were as yet unavailable, (b) career education is a context or philosophy for teaching as much as specific concrete activities, and therefore it must be "infused" rather than added on or substituted for what is already being done, (c) school staff were more likely to accept and maintain changes which they had a part in developing than changes which they perceived as being mandated by the "outside"--central office, project, etc., (d) the Lincoln Public Schools operates on a considerably decentralized management model, making it difficult as well as contrary to the management philosophy to install programs from outside the local school itself. So the project adopted a change/support model of approach rather than a product installation mode.

(3) The project would allocate some resources, especially at the high school level, to staff who would work directly with students. However, it was understood that high schools would contribute to the support of career education staff beginning the second year, and at the end of the third year, if such staff were still considered necessary, would support them entirely from local building staff allocations. In general the project took the point of view that project resources should be expended on planning and initiating career education by the persons already responsible for education rather than establishing a new and additional set of staff persons to take on the responsibilities of career education.

(4) The work of the project would be divided into five components: Planning, Management, and Evaluation; Support Services; Guidance; Curriculum/Staff Development; and Placement. The PME and Support Services Components managed the work of the project and the development of services and systems found to be needed. The work of the Guidance and Curriculum/Staff Development components are evident in their titles.

The Placement Component was funded by state Part D funds and dealt with (a) placing students in long- and short-term, paid and non-paid curriculum-embedded learning/working situations as a part of their career development and (b) assisting students to make the next step in the career plan successfully, whether it was into full or part time employment, or further education or training.

As ideas for these components were written they were passed back to the planning group for their reaction, and the revised versions were finally incorporated into the final document which was approved for funding without significant change for $119,621 per year for three years from the federal Part D money and approximately $45,000 per year from the state Part D funds for the Placement Component.

STAFF

The Project was staffed with several central positions and several local building coordinators. At the central level Carl Spencer became the director. He came with seven years' project experience, the last two of which were as director of a Title III project in reading in the Lincoln Schools. During the first year of the project he held both positions simultaneously. Jim Leestma worked as planning specialist in both projects, also. His role was to analyze the major tasks of the project and to construct the plan of work for completing those tasks. He also supervised project evaluation efforts. A project accountant/clerk completed the staff of the Planning/Management/Evaluation Component.

Also at the central level one staff member was assigned half-time to staff and curriculum development activities. The responsibilities included developing and assisting other staff to use staff development programs district-wide and in individual buildings; collecting, evaluating, cataloging, storing, and distributing career education curriculum materials through the services of the central media center; and organizing workshops in which infusing career education into present curriculum was the major tasks. During the first year of the project this position was combined with a position as local building coordinator. In the second and third years it was combined with a position as specialist for elementary schools. The project director also worked a great deal with staff and curriculum development.

Another major area of project emphasis was the Community Resources System. A central staff member was assigned to design and operate this system, working closely with the project planning specialist. A person with considerable knowledge of the community and understanding of career education was employed for this position. For the third year of the project the person who had served as her part-time clerk for two years was given responsibility for maintaining the system under the auspices of the central media center.

Career Education Coordinators were assigned the first year of the project to each of the five high schools (including Pius X.) Each staff member was also responsible for at least one junior high and one elementary feeder school of the high school. The role of these coordinators was threefold: (1) to assist each school to develop and implement systematic plans for infusing career education into the programs of the school, (2) to work directly with some students to assist them in career development, particularly in exiting placement and (3) to participate in the district-wide career development activities of the project such as developmental task forces, dissemination to other schools, staff/curriculum development, etc. During the second and third years of the project these coordinators were assigned solely to the high school, who then supported them half-time. A former elementary central office "helping teacher" was assigned to work with all elementary schools, and the project director worked with two junior high schools. Thus, upon the advice of the project advisory council, the principal's council and the superintendent's cabinet, the project did not expand into the junior high schools to the degree intended when the proposal was written.

Coordinators chosen for the first year of the project included a Distributive Education teacher at one of the high schools who had been heavily involved in planning the project; a newly graduated EdD in secondary education who had considerable vocational education experience; and a former government administrator from Washington D.C. whose spouse had taken a position at University of Nebraska at Lincoln. The person who filled the half-time coordinator/half-time curriculum and staff development position completed an EdD in secondary education the first summer of the project and had had administrative experience in secondary schools.

The original staff members were chosen as the result of an extensive review process. Candidates were first screened by the project director on the basis of their credentials. At least twenty-five were interviewed by the project director in addition to their interview in the Personnel Department. About a dozen were then interviewed by Selection Research Incorporated and by a review committee from the Lincoln schools consisting of approximately ten administrators and curriculum consultants. Project staff who survived this process proved to be capable and hard-working. In only one situation in which the staff member was assigned part time to work as a coordinator and part time to work with staff/curriculum development was any difficulty experienced in establishing the necessary relationship with a school.

Several staff changes took place. The staff was reorganized for the second year of operation. Coordinators were assigned to high schools only, rather than elementary, junior high and senior high, primarily because they had had secondary background only and were experiencing some credibility particularly in elementary school problems. Also, since high schools were willing to provide support from local funds, it seemed wise to take advantage of the opportunity. Therefore, an elementary specialist was hired part time to replace them using the project staffing funds thus made available, and central office staff served the junior highs. This change also made possible increasing a counselor at Pius X from part to full time using project funds rather than having Pius served as part of the duties of another project staff member. At this same time the staff member assigned part time as coordinator and part time to

staff/curriculum development resigned. This staff/curriculum development assignment was taken by the new elementary specialist, and his coordinating duties were taken over by a new coordinator replacing the former DE teacher who also resigned to take a better position. This new staff member had been director of the Manpower operation in Lincoln for nearly ten years. At the end of the second year he too resigned to take a position in the central office; he was replaced by an outstanding teacher/leader in the same school. The staffing of the project over the three years is shown on the chart on the following page, as exhibit 1.

There are two items of major significance about these changes. One is that one high school, Southeast, was continually slighted in the staffing arrangements, by chance and not by design. That school was partially served during all of the project period, but not served as fully as other high schools. Because of this contrast in services, it has been used, somewhat questionably, as a control school in the evaluation design for the project. The second point is that "soft-money" projects find it easier to attract capable staff than to keep them. If staff from outside the district are hired, the district does not recognize them as full-fledged district staff in one very important respect; they do not receive tenure. Therefore, staff who are new to the district can hardly be blamed for looking at the project position as a "roosting" place while they look for a better position. Or in a more subtle difficulty, they may try to "burrow into" the system by creating a position for themselves in some school--a process which may not be in tune with overall strategy of the project. Finally, because very capable people are sought for the difficult jobs of a project, it is only natural that with increased visibility and skills they become desirable to others seeking highly qualified staff.

GENERAL STRATEGY AND MAJOR ACTIVITIES

The general strategy of the project was to work with established organizations on several fronts to help them plan and implement career education goals and activities within their own establishment. In general those fronts were (1) in local schools with the school as a whole, with departments or teams, and with individual staff members, (2) with central office departments such as Student Services (primarily Guidance), Instruction (the ten or twelve Curriculum Consultants), the various staff development specialists working on various projects such as Education for Gifted, Cultural Awareness, Elementary Helping Teachers, etc.), with the Media Center, and with the Special Education program, and (3) in the community to establish communication between the project, the school system, and the community and also to organize for the effective use of community resources in career education.

In actuality, work on all of these areas had begun before the project officially began, because groups from all areas had had input into the production of the plan submitted in the final proposal. The Goals Survey section of the Needs Assessment procedures had been constructed and administered to staff, students, and the community. Schools who were to participate in the first year of the project had been self-selected before summer vacation began. Discussions were ongoing in the central office

EXHIBIT I

PROJECT STAFF
(including both federal and state-funded positions)

Position	First Year	Schools directly responsible
Accountant/Clerk	full time	
Director	3/4 time	
Planning Specialist	1/2 time	
Community Resource Coordinator	full time	
Staff/Curriculum Development Local School Coordinator	combined position	Southeast H.S.
Local School Coordinator	full time	Northeast H.S., Mickle J.H., Pershing Ele
Local School Coordinator	full time	East & Pius H.S., Blessed Sacrament K-8
Local School Coordinator	full time	Lincoln High, Goodrich J.H., Brownell Elem

Second Year

Director	3/4 time	Goodrich Junior High
Planning Specialist	1/2 time	
Accountant/Clerk	full time	
Community Resource Coordinator	full time	
Community Resource Assistant	full time (1/2 local funds)	
Staff/Curriculum Development Elementary Specialist	combined position	Pershing, Brownell, Mickle
Local School Coordinator	full time (1/2 local funds)	East Sr. & Jr. Highs
Local School Coordinator	full time " " "	Northeast High School
Local School Coordinator	full time	Lincoln High & Southeast H.S.
Local School Coordinator	part time (1/2 local funds)	Pius X High School

Third Year

Director	3/4 time	Goodrich Junior High
Planning Specialist	1/2 time	
Accountant/Clerk	full time	
Community Resource Assistant	1/2 time	
Staff/Curriculum Development Elementary Specialist	combined position	All Elementary Schools
Local School Coordinator	full time (1/2 local funds)	East Sr. & Jr. Highs
Local School Coordinator	full time	Northeast Senior High
Local School Coordinator	Part time (1/2 local funds)	Pius X High School
Local School Coordinator	Part time (1/2 local funds)	Southeast High School

with curriculum consultants and staff members of other departments. And the Community Advisory Committee met to approve the final version of the proposal and again when word was received of its funding.

The general approach in working with schools was to establish a cadre of leaders at each participating schools, including the principal. These cadres would be trained during the summer and plan for implementing career education both in their own work and in the school as a whole the following year. The Career Education Coordinator assigned to that school would work with that cadre, both individually and as a group, to get career education moving. In the following years it was anticipated that additional schools would establish cadres, receive training, construct plans, and begin to improve career education in their schools.

In the central office, the project director planned to work with the guidance department to establish a comprehensive plan to assess guidance needs, to establish a recommended program and in-service to prepare staff to implement it, and to carry out that plan. Similarly the Curriculum/Staff Development Specialist was to work with the curriculum consultants and various staff development specialists to plan for infusing career education into their work, such as curriculum workshops and plans for recommended curriculum. Also this staff member was to work with the Media Center to establish the Career Education section for use by the district as a whole. The Community Resource Coordinator planned to work with central office staff already involved with community resources, such as the Director of Student Employment, the consultants involved with co-op vocational programs, and special counselors involved with work/study programs. Together they would plan a system for working cooperatively to identify, analyze, catalog and distribute information about community resources which all could use. Such a combined program would also reduce the confusion about the programs in the mind of community resources and school staff as well.

Finally the director and the Community Resource Coordinator would work together to gain support from the community and access to its resources. The Director was to communicate through the Community Advisory Council, through press releases, and through presentations to civic groups. The Community Resource Coordinator was to work with other school staff interested in community resources to plan and implement ways to use those resources effectively and efficiently.

The Director worked with each of the staff members to help them analyze the objectives and major tasks of their assignment and to form more detailed plans for achieving them. Management of the project staff took the form of reviewing these plans, revising them, and forming new plans. Other management functions of the project were carried out by the director as systematically as possible using the resources of the district such as the Accounting Office, Personnel Office, etc. It was assumed that evaluation would be done by the new Office of Evaluation in the local Educational Service Unit, but requests for proposals for evaluation services were extended to several other agencies.

PROCESS AND PRODUCT OBJECTIVES AND MAJOR TASKS: (1) Needs Assessment

The planning group had established that the project should proceed on a determination to make data-based decisions insofar as possible. It seemed obvious that a thorough analysis of need for career education should be made as a basis for the work of the project. Such a Needs study was designed cooperatively by the director-to-be and the Associate Superintendent for Instruction. The first step was to do a Goals survey of the staff, students, and the community. The Lincoln Public Schools Goals for Students were revised and submitted to a carefully selected sample of staff, students, and community as a two-fold card sorting activity. In the first activity they were asked to rank the goals in order of importance; in the second they were to rank them in order of the degree to which they were being achieved in the district. The results of that study showed, among many other things, that students and parents placed a higher value upon career education related goals than staff, and also felt the schools were not doing as well in achieving them as did the staff. These data were published and widely circulated for use by many planning groups in the district. In the Career Education Project they were combined with many other groups of data and presented to district-wide and building level planning groups for their use in selecting specific needs for which to prepare activities.

PROCESS AND PRODUCT OBJECTIVES AND MAJOR TASKS: (2) Systematic Plans in Schools

A second major characteristic of project activity was that it should use and encourage the use of systematic plans both to improve the quality of proposed actions, and to provide accountability for achievement of goals. A major area for such planning was in assisting schools to plan and implement career education improvements.

Schools who were to participate in the first year of the project had been self-selected before school staffs left for summer vacation. The director-to-be had made presentations to each of the faculties explaining the concepts of the project and inviting their participation. More schools were interested in becoming involved than were possible to include, but they were promised assistance later. The Special Education department of the central office was also included from the beginning as a "school."

Except for the major tasks of employing the staff for the project and getting the project set up, the first priority after receiving funding in June was to establish a career education cadre at each participating school, training them in the concepts of career education and planning, and assisting them to develop plans for improving career education efforts in their own work and in the general operation of their school. Arrangements were made with the University of Nebraska at Lincoln to house such a workshop, to grant credit to those who wished it, and to work with project leadership to plan and operate the workshop. Dr. Hazel Crain and Dr. Jim OHanlon were particularly helpful. A three-week experience was held with the concepts of career education taking up the first week, concepts of planning and plans by individual members for their own week during the second week, and plans for the school as a whole during the third week. Project staff helped provide inputs, gave planning assistance to the cadres, and in general gave process assistance to the workshop. They then began their work with the cadres as school began in the fall.

The cadres functioned differently in each school: The original idea was to get the real leadership of the school in the cadre. In some cases that objective was accomplished; in others some of the desired persons had other priorities or other plans during the workshop. One elementary school had to be dropped from the project and replaced even though there was a great deal of enthusiasm for the project when it was discovered that only one person would be available for the workshop. Since principals were asked to choose the cadre members, the project staff had little input, and in some cases it appeared that the principal chose anyone who was available to fill the school's quota at the workshop. However, all schools were well represented and most of the principals participated heavily during the workshop. When school began and the staff were back together, most of the schools wanted to expand the cadre immediately to include key persons who had been left out. The cadres with the help of the Career Education Coordinator assigned to the building began the year by presenting the project, career education concepts, and the school plan to the faculty as a whole. A filmstrip was produced as soon as possible by the Publications Department to assist in presentations to school staff and the community.

School plans for the first year were quite general and of limited ambition. Their major strengths were that they were in many cases the first school-wide written plan ever constructed by the school and the activities they described certainly meant improvement of career education in their buildings. Their major weakness was that the times when certain things were to occur were not specified nor were the persons responsible designated. Follow-up sessions were held after school began with the cadre, including the principal, of course, and the Coordinator assigned to the school, but little progress was made in making the plans more specified. Principals seemed more comfortable with the plans as general statements of intent rather than detailed management devices. However, in quarterly review sessions these general statements of intent served quite well to remind the cadre of their self-imposed obligations as well as providing cues to successes already achieved. The final review was a written point-by-point discussion of the plan prepared by the Coordinator in consultation with the principal and the cadre where it was still functioning, and these reports served as a basis for the interim project report.

In preparation for the second year of the project, the central staff prepared two additional in-puts. The first was a more detailed guide to writing the school plan, giving more emphasis to goals closely allied to the Lincoln Public Schools Goals for Students, and providing more detail on the management topics of timelines and persons responsible. The second was a set of career education goals derived from and related to the Lincoln Public Schools Goals for Students. Early in the spring the school was given the Planning Handbook and planning sessions were scheduled by different schools at different times, beginning in the spring, and in some cases not finishing until school began the next fall.

The Handbook addressed the attention of the planning group to several major topics:

(1) they were first to select several (5 or 6 was the number suggested) of the Goals which they wished to emphasize
(2) they were then to look at the data available to document the needs for working on each goal. Data were available from the District-wide Needs Survey, results of Priority Counseling Surveys given to their students, results of a study done as part of the evaluation "Career Preparation and Work Experience", results of teacher questionnaires on career education completed in the spring, etc.
(3) The next step was to list activities under each goal to help achieve the goal.
(4) Finally a timeline, designation of persons responsible, and listing of resources needed were to be determined for each activity

School planning strategies varied. In some cases a planning group of team leaders or department chairpersons, Principals and other staff prepared the plan, with considerable revision. In other cases the principal prepared it with in-put from key leaders. In still others, the principal and assistant principals prepared the plan without much input from the staff at all. Our general observation was the amount of participation of the staff was not the key to success of the plan. The strategy used to prepare the plan was generally descriptive of the overall management style of the principals but success was related to the quality rather than style of the principal's leadership. Good plans and large numbers of quality activities took place in a school in which the principal exerted strong leadership with considerable authoritarian overtones, in a school in which the principal "turned loose" the Coordinator who involved a large number of staff, and in a school in which the principal and a cadre worked together as a group to plan and manage the program. Lower quality plans and fewer quality activities took place in a school with strong leadership with authoritarian overtones, in a school with distant leadership and little staff involvement, and in a school with strong leadership and considerable staff involvement. Where career education efforts were less than satisfactory in schools with strong leadership, it would appear that the principal placed career education too low on the priorities rather than being a case of poor leadership.

During the second year the plans were again used by the director to manage the project at the school level. Project staff serving as local coordinators analyzed the political structure of their school and constructed a detailed plan of activities by which their energy could be used to assist the school to plan and implement career education. These management plans were reviewed and revised monthly, and the school plan was reviewed with the principal and the cadre, if it still was functioning, on a quarterly basis.

The district had been searching several years for viable ways to apply the principles of systematic management to managing schools in a decentralized system. A person had been hired but left when he could make no progress after a year. A comprehensive workshop on systematic planning left the principals cold and no follow-up was made. However, during the second year of the project, principals were asked by the superintendent to declare three or four priorities, including a couple required by the district, and write a plan for making progress in those high priority areas. These plans were much simpler than the career education plans, but it appears the example furnished by the project had been influential. Trying to key in on this trend, the project required less detailed plans for the third year, realizing that once the contingency provided by availability of project funds was removed, principals would do only those things which they themselves found valuable or which were required by their supervisors in the central office. Even though somewhat less detailed, the third year plans seemed to come more from a sense of purpose in the participating schools, and were achieved to a greater extent than previous plans. The planning format was similar to that used previously, but in addition called for setting of goals for the level of training and number of activities based on the chart listing Levels of Implementation furnished by the Career Education Office in USOE. Use of the plans as management devices by the director proceeded as before.

The fourth year strategy of the project was to encourage schools to prepare plans as before. In schools who saw career education as a major ongoing effort, these plans were prepared in even greater realism and detail. In schools where local leadership had been less strong or lukewarm, specific career education plans were not made, and career education received mention only in the general plan submitted to the superintendent. On the other hand some of the high schools, despite arguments to the contrary, presumed their career education efforts to be subsumed under the new project Experience Based Career Education being proposed by the district to begin the following fall.

PROCESS AND PRODUCT OBJECTIVES AND MAJOR TASKS: (3) Staff/ Curriculum Development

Staff development deals with improving the concepts and skills of staff members. Curriculum development deals with developing, adapting, and installing of plans and activities for learning. Staff development takes place in several major ways: in input sessions such as lectures, films, readings, etc, in processing sessions such as discussions, laboratories, and simulations, and in output sessions such as planning, applying in classroom, refining. Curriculum development occurs also in several major ways: in purchasing and installing an already developed curriculum, in adapting or refining an already existing curriculum, or in constructing an entirely new curriculum. The Career Education Project was involved in all of these major types of staff and curriculum development.

CADRE WORKSHOPS

The major installation strategy of the project was to establish and train cadres in each participating school who would illustrate the philosophy and activities of career education in their own work and also serve as catalysts for the further development of career education programming in their schools. A month after the project was funded a three-week workshop for the cadres was carried out jointly by the University of Nebraska and project staff. During the first week inputs were made about the philosophy of career education. These inputs included various needs data from local and national sources, presentations by local business and labor leaders and professors from the education and psychology departments, and the limited literature on career education published at that time. Each cadre was to produce a paper stating on career education stating the need, a rationale, and a general description of their philosophy of career education at the end of the first week. During the second week the emphasis was upon classroom application of the career education philosophy. Irv Muscowitz of Hackensack, New Jersey and Bob Blum of Jefferson County, Colorado made presentations to the group. Commercial materials so far collected were analyzed. Each participant then produced a plan for incorporating career education into their specific assignments. During the final week a "planning guide" was introduced and the participants were asked to work in groups by schools to construct a plan for installing career education in their school during the coming year. The plans produced emphasized awareness activities for the total staff, but were weak on specificity as to assignments and timelines. Nonetheless, a good beginning was made and project staff had something to work with in their local schools.

LOCAL SCHOOL AWARENESS WORKSHOPS

Project staff assisted local school staff in planning and conducting awareness workshops for local schools, many of which occurred during the pre-school week orientations and workshops. Project furnished materials included the film "I Want to Be" from the Ohio State University and the materials used in the cadre workshop. Later a sound-filmstrip was produced describing the project for use in schools and community and educational groups, and a position paper presenting the rationale and objectives of career education were produced by the project staff.

WORKSHOPS FOR SCHOOL LEADERS IN CONTENT AREAS

Working with central office consultants, workshops were planned and held for many of the department heads and leaders in content areas in the participating schools. The format of these workshops were generally the same and most of them lasted about 40 hours. First the participants were introduced to the major concepts of career education through mediated presentations of the philosophy and detailed examination of the goals and student outcomes of career education. Detailed objectives closely related to the Lincoln Public Schools Goals for Students had been published, drawing heavily upon the National Assessment materials. During the second phase of the workshop, participants visited work sites in the community

gathering information about the application of their subject matter in the working world and looking for resources which could be used with their students either in their classroom or at the community site. In the third phase participants constructed plans for applying the concepts and resources of career education in their classroom using both community resources and learning resources provided by the project through the curriculum materials library. In many cases these products were printed as a guide for other teachers in the same content field. Such guides were produced in math, science, social studies, and foreign language. The art and English workshops did not result in guides.

OTHER WORKSHOPS

Other workshops took a different tack. Forces were combined for a workshop in social studies and career education emphasizing career education, cultural awareness, and personal and social growth; materials were produced and disseminated. A number of workshops emphasizing use of community resources were held, both in the summer and during the mid-winter workshops as well as during orientation week before school. These workshops usually began with visitations in the community followed by a discussion of use of community resources including employers and finally presentation of the Community Resource System operated by the project through the media center in the central office.

Several workshops involved training in the use of interest and aptitude tests. Tests such as the Kuder, GATB, PIES, COPS, DAT, TAP, and ASVAB were analyzed and their potential uses noted. In other workshops the administration and interpretation of the Priority Counseling Survey was the topic. In another major effort, the construction and use of learning centers incorporating career education, cultural awareness, and personal/social growth was a joint endeavor of three members of the central office staff development corps working with a cadre of elementary teachers.

CURRICULUM DEVELOPMENT

Although many of the workshops just described were designed to make participants aware of career education concepts and practices, often a curriculum product was the result. Each of the content area workshops produced curriculum materials, for instance, and the purpose of the workshops on learning centers was to produce learning materials which others could then be disseminated, along with a training session, to other teachers.

However, a significant amount of project resources was allocated to support curriculum development efforts by individual staff members of participating schools to infuse career education into their individual lesson plans or to provide new courses for their department. Project staff assigned to the school were responsible for building the necessary understanding of career education, providing already developed materials to serve as models, and reviewing progress as the units or courses were being developed. The producers worked under the terms of an "agreement"

which specified the career education objectives to be met and the procedures to be followed in developing the materials. For example, each product was to include a rationale describing why the unit was necessary and how it related to career education. Each product was to include appropriate learning activities keyed to the career education outcomes and a method for evaluating success in reaching those outcomes. A considerable amount of learning materials were thus produced, and although many items were usable, the quality was quite uneven. Poorer quality products generally resulted from inadequate understanding by the producer of the philosophy and objectives of career education; by the fact that career education was defined so broadly by many that it included almost anything the producer had in mind to do; by a lack of firmness by career education staff who on one hand wanted to build rapport with the producer and give encouragement to help the producer develop an understanding of career education and apply it to instruction, and on the other hand were somewhat uncertain themselves about the instructional implications of the definition of career education. It requires exceptional self-assurance and skill to channel the creative energy of an educator away from directions which are derived from many and long experiences and into a direction called for by a "project" which will be around only a year or two. In short, the curriculum development efforts were not always highly successful. On the other hand a considerable awareness of career education was engendered, and a good deal of good will created. The images, while somewhat slow in generating, became more and more real for local school staff, and at the time of the end of the project, the majority of staff members were ready to try to pull together these isolated images into a consolidated and systematic plan for career education. A major change such as career education demands simply cannot be made in three years.

PROCESS AND PRODUCT OBJECTIVES AND MAJOR TASKS: (4) Community Resource System

Encouraging the use of community resources was seen as a major aspect of the project. A task force to establish a community resource support system was organized immediately to deal with such problems as how to identify and get commitment from community resources; how to organize information about community resources in such a way that it would be useful to school staff; how to store and deliver such information to potential users; how to coordinate uses of community resources for career education with other uses such as uses already being made by teachers for field trips and speakers; uses by co-op vocational classes, etc; how to screen out poor resources and prevent overuse of good resources; how to coordinate the local resource banks with the central resource bank; and similar problems.

A staff member was assigned full time to work with the community resource system under the direction of the Director of Work/Study programs in the Department of Student Services at the central office. Community resources were seen as a support system for placement services so the position was funded from the State-provided Placement Component. The task force was under the leadership of the project planning specialist. Decisions made by the task force induced the following: (1) presentations would be made to potential community resources directly and in person by the project staff, using an interview form and a commitment form.

General presentations to community groups using the Project tape-filmstrip and other materials were served to identify resources in addition to those which came to mind to those well acquainted with the community. (2) Information would be filed in the central office and a "suppressed" catalog would be published for use by school staff. A "suppressed" catalog meant that only a description rather than the name of the resource would be published and users would then contact the central office for assistance in making specific arrangements. This procedure would allow input by the staff to improve the quality of the experience, collection of data about numbers and quality of experiences, and some coordination in the use of resources. The resources were to be categorized by the 15-cluster organization scheme developed by USOE. (3) Users of the cataloged information were to be instructed to identify their need, call the Community Resource System number, and arrange for resource. If no resource was listed in the catalog, the project staff member would attempt to locate an appropriate resource. (4) After the resource was used the user was to complete and return an evaluation sheet.

About 300 resources were cataloged in the central system, and many more existed in local school files. Project staff conducted inservice with potential users when the catalogs were delivered to local schools. The catalogs were used as a part of the inservice sessions, and eventually a section on effective use of community resources was added which suggested activities for students as well as providing forms for interviews, thank you notes, etc. During the second year 100 resources were added to the system, and the catalog was revised and republished. Copies were placed in all Lincoln schools. During the third year the system became a part of the central media office and was operated by a clerk trained during the first two years of the project. During the second year of the project alone, more than 5700 students were involved in activities supported by the Community Resource System.

However, several problems were left unsolved. No effective way has yet been implemented to coordinate the use of community resources on a city-wide level. Not only do local schools and teachers have their own files of resources, but competition for resources is rampant among the University, three other colleges, the community/technical college, various training schools, and various civic groups who sponsor work/experience programs such as Explorer Scouts and Junior Achievement. At this point the facilities of the community are not overloaded, but rumblings from the community resources are often felt, more in anticipation of future trouble rather than statements of present complaints. Secondly, teachers are still under-using community resources, both in the sense of not using them enough and not using them in the right way. There are still too many "field trips" in which learning objectives and learning processes are unclear. There are too many occurences in which students are "turned loose" on the community without a structured plan for learning which comes only with detailed preparation. Yet the use of community experiences is a major accomplishment of career education, as measured by responses both of teachers and students. What is needed is continued support for the teacher to make community resources available, and continued supervision of the use of community resources to make their use effective. If we do not give the teacher support, the use of resources will decline. If we do not make good use of the resources, the community will cease to be as responsive to our requests.

PROCESS AND PRODUCT OBJECTIVES AND MAJOR TASKS: (5) Curriculum Center

One of the major support services of the project was to establish and maintain a collection of career education plans, learning goals and objectives, and instructional activities. Several types of materials were collected, cataloged and made available for use by project staff and school staff in planning curriculum and in the classroom.

First, requests were made of all career education projects listed in USOE publications, ERIC, and newsletters and magazines. These projects sent copies of their planning documents and ordering information or actual copies of learning materials they had produced. Requests to all State Departments of Education produced position papers, lists of objectives and units, and actual instructional materials. All commercial companies were requested to send review copies and many of these materials were ordered. Finally, materials produced locally were included.

The materials were divided in several major categories. Those which dealt with plans for implementing career education in general, general sets of student goals and objectives, and position papers on various issues were categorized as "professional" materials. Materials more directly useful to the classroom teacher were the other major category, and they were divided into 9 major sub-categories by career education themes--Academic/Vocational Skills, Career Information and Awareness, Work Habits and Work Values, Personal and Social Development, Economic Awareness and Consumer Economics, Skills in Work Seeking and Work Getting, Career Decision Making, Awareness of Means for Continued Education and Training, and Professional Resource Materials, and cross-indexed according to major subject-matter fields for which they were appropriate.

Each piece of material was reviewed and a descriptive card completed. The card was filed in the card catalog for career education materials in the media center under the appropriate sub-category and flagged to indicate the subject-matter reference. A copy of the card is included on the following page. Cards were color coded to indicate elementary, secondary, or general/K-12 materials.

In the actual files themselves, materials were arranged by the 9 major sub-categories plus the "professional" category. In each sub-category materials were placed in folders color coded to indicate appropriate subject matter areas to match the flags on the index cards. A "professional" or general section was included in each sub-category as well as in the overall set of materials. Materials were then filed alphabetically within sub-sections.

Most of the collected materials were locally published manuscripts of 100 pages or less and were filed in vertical files as described above. Books were cataloged according to the system and placed on book shelves. Classroom activities and mediated materials were stored in cabinets.

EXHIBIT 2

CAREER EDUCATION MEDIA RECORD

Location (For Office Use Only)

TITLE _____

PUBLISHER _____

Type of Material (e.g., films, fs., pamphlet, unit, tape) _____

Curriculum Area(s) for Suggested Use _____

Main Career Ed. theme(s) (see back of card for 8 categories) _____

Suggested grade placement _____

Describe the main idea(s) _____

Comment on any weak parts of production or content such as: Racist? Sexist? Stereotyped? Poor sound? Inaccuracies in content? Etc. _____

What experience did you have with this material?

_____ used with a class
_____ used with _____ (no.) students
_____ previewed in entirety
_____ previewed with O.T.
_____ partially viewed
_____ other _____

Do you recommend the material for purchase? Yes ____ No ____ Why? _____

Does the material support career education theme(s)? Mark continuum for amount of Career Ed. _____

Much 1 2 3 4 5 None

If it does, please complete the check list on the reverse side.

Signed _____ Date _____ School _____

(Check proper box)

CAREER EDUCATION THEMES	LITTLE	SOME	GOOD IN THIS AREA	COMMENTS OR EXAMPLES
Academic/Vocational Skills	☐	☐	☐	
Career Information and Awareness	☐	☐	☐	
Work Habits, Work Values	☐	☐	☐	
Personal and Social Development	☐	☐	☐	
Economic Awareness and Consumer Economics	☐	☐	☐	
Skills in Work-seeking/Work-getting	☐	☐	☐	
Career Decision Making	☐	☐	☐	
Awareness of Means for Continued Education and Training	☐	☐	☐	
Professional Resource Materials:				
Descriptive--what is Career Ed., how to start a program, etc.	☐	☐	☐	
Planning Model	☐	☐	☐	
Professional books (etc.) for collective information on Career Education	☐	☐	☐	

ADDITIONAL COMMENTS

A printed catalog containing all of the information on the reference cards was distributed to each of the schools. Staff were invited to use the materials in the central media center or to check them out directly or through their local media center. Project staff often made collections to use in workshops or for individuals who were developing units or writing position papers or plans. At the end of the project an annotated list of project materials was added to the annotated bibliography published by the State Department of the State of Michigan and the complete publication was distributed to schools.

Two other elements were included in the total system. In order to have ordering information and a way to find materials when only the publisher was known, a card file was organized of all the materials listed by publisher and including ordering information. Finally, a vertical file of publishers catalogs was established and maintained.

Materials were often received from publishers for review and possible purchase. Project staff reviewed most of these materials, and cards were completed for inclusion within the catalog on these materials, with the notation that the card was for information only, and the material was not included in the system. For materials of major interest, a review committee of school staff was established. These teachers and counselors were briefed on the use of the system and the goals and plans for career education, and when materials were available which needed to be coded and evaluated, they were sent to these "evaluation team members" with instructions to analyze them, use them in classrooms if appropriate, and to render a judgement about their worth. Not only were materials evaluated by this process, but also a few teachers in some schools were aware of their existence and the process of dissemination was thereby facilitated.

The work of the curriculum center was enlarged to include assistance in development of curriculum as well as providing a collection of materials. The project staff person assigned to the center was also in charge of curriculum and staff development, and in that role used the expert knowledge of the materials to assist central office consultants and project staff as they planned district-wide curriculum and staff development activities and individual teachers and departments in local schools as they worked on instructional plans.

At the end of the project the operation of the curriculum materials center was completely taken over by the regular staff of the central media center where it had always been located. The center has been included in the State plan for career education now being developed by the Nebraska State Department of Education as one of the career education resources of the state to be supported through the state plan.

PROCESS AND PRODUCT OBJECTIVES AND MAJOR TASKS: (6) Curriculum materials for all levels

At the beginning of the project a decision was made not to invest heavily in commercially available or locally developed curriculum. Career Education was seen more as a context for teaching than a specific content which needed new courses and additional subjects. The implication was that career education should be infused into existing programs and learning activities rather than being a separate subject in its own right. A second reason for this decision was that few first-rate career education materials were available in 1973--many of those available were simply republished versions of old materials with a new career education label. Finally, the project was seen as a change-support system for existing programs not as a mechanism to buy or develop new curriculum and install it in schools from the central office. Therefore, decisions about curriculum change and purchase of new or additional curriculum were to be local building decisions rather than project recommendations.

SCOPE AND SEQUENCE OF CAREER EDUCATION OUTCOMES FOR STUDENTS

Even though instructional decisions are seen in the Lincoln district as local building matters, the overall direction for curriculum is established for the district by the Goals for Students adopted by the Board of Education and in many cases by a set of overall objectives for area usually provided by a district-wide curriculum task force. Following this traditional procedure the project assembled a general scope of career education outcomes for students using twelve of the twenty-six Lincoln Public Schools Goals for Students. Sub-goals were derived primarily from the National Educational Assessment Project goals for vocational and career education. These goals for students were distributed at in-service sessions to provide additional detail for staff to about the content of career education. Staff who were writing curriculum units were instructed to establish which of these goals were included in the units and to draw upon them for ideas for content. A simplified version was used classifying instructional materials. By and large the curriculum strategy of the project was to assist individual teachers, teams, and departments to infuse these goals into their present curriculum and into new curriculum which was being developed continuously in the district, rather than purchase sets of curriculum materials and attempt to install them.

There were two disadvantages in this approach however. One is that teachers often are able to relate more quickly to instructional activities than to goals and objectives. We often heard the comment, "If you want me to do career education, give me the instructional materials, and I will try to do it." Secondly, there were a few good instructional materials available, and more became available all of the time.

THE VALUING APPROACH TO CAREER EDUCATION

One outstanding piece of material for elementary use is the Valuing Approach to Career Education published by Education Achievement Corporation. This very detailed set of teacher's guides and accompanying media incorporates learning objectives in three areas--career education, personal/social growth, and thinking skills--for grades K-8. These materials were installed in four Lincoln elementary schools, with the major problem being the difficulty teachers perceived in finding time for them. In some cases the units were simply added to the curriculum in place of other units; in other cases the units were used to supplement existing plans. Blessed Sacrament Elementary School found them suitable for use in the "religion" classes for elementary students.

PROJECT DISCOVERY

The Project Discovery materials published in Red Oak, Iowa and recently endorsed by Phi Delta Kappa is a second outstanding curriculum. Project Discovery is a multi-media, activity-based self-directed set of simulated work situations for career exploration in the middle and upper grades. The Lincoln project became a "charter member" of the curriculum development and dissemination effort and the materials were installed in four junior high schools in Lincoln. They are used in several ways: (1) as a major activity in a junior high school career development curriculum course, (2) as the major activity in an exploration unit associated with Basic Studies in junior high school and (3) an independent activity which students may undertake on their own time. Junior High Schools in Lincoln are organized like miniature senior high schools. It is almost impossible to give students access to learning experiences or credit for the experiences unless they are part of a "class" and this necessity puts severe restrictions on the usefulness of a set of materials such as Project Discovery unless one simply organizes a class in career development or Project Discovery and we were trying to infuse career education rather than establishing classes in it.

MEDIA NOW

Media Now is a production center course in media for secondary students also produced at the Learning Center in Red Oak. Under project leadership, a Title III mini-grant was written to install the program in Lincoln High Schools. The director of the mini-grant rewrote some of the original materials to adapt them to Lincoln and to emphasize the career development features, and held a short in-service session for the staff members who would be using it. Media Now is now a part of the curriculum in each of the high schools.

DISTRICT-WIDE CURRICULUM DEVELOPMENT INCLUDING CAREER EDUCATION

During the second year of the project it became obvious that the project should respond to the requests for more specific curriculum materials. The third year goals called for the development of a scope and sequence of career educational outcomes for students in Lincoln and units of instruction at each grade level. In order to continue to infuse career education into the curriculum and to get resources for a major curriculum development effort, support was sought from the central staff in the Division of Curriculum and Instruction for a joint effort to rewrite the social studies curriculum to include outcomes in personal/social growth, multi-cultural education, and career education as well as more traditional social studies outcomes. It was agreed that such a curriculum would be written and that those who wrote it should receive special training after which they could write other curriculum as well. The Institute for Staff Development provided training in curriculum development to twenty Lincoln Public School staff members in a four-week workshop in the spring and summer of 1975. One of the central office curriculum consultants (Home Economics) was assigned half-time to continue the effort. A curriculum outline was completed, and a number of units were written and piloted. At this point two decisions were made: one was that although the scope of objectives was satisfactory, considerable more effort would be required to complete the sequence of outcomes, and the other was that curriculum writers should be trained in BASICS teaching techniques in order to develop effective units. The district then embarked on an ambitious five-year project to teach BASICS to all teachers, beginning by teaching all curriculum consultants to be teachers of BASICS. Further curriculum development was postponed until more persons were trained in BASICS except for one person working half-time on personal/social growth units (which contain most of the self-awareness and social skills outcomes of career education curriculum.) The project continued to work with the career education outcomes for the junior high and completed a general scope and sequence for the junior high which is the basis for junior high school plans for the coming year and will be used in further curriculum development by the district.

ELEMENTARY LEARNING CENTERS

In order to reach the goals of having instructional materials available at all grade levels and subjects the project continued to support individual teachers and teams of teachers in writing units. At the elementary level the project took advantage of the district-wide enthusiasm for learning centers, an effort being supported by the elementary "helping teachers" from the central office. The project curriculum specialist organized a team of K-6 teachers to write learning centers related to the general scope and sequence of curriculum described above. Each unit included outcomes from career development, personal and social growth, and multi-cultural education. Two centers each were

produced at each grade level. Pilot installations were equipped with teachers who agreed to develop a center of their own after using the project-developed center. Workshops were held in the construction and use of centers, using both project staff and the teacher-developers. By the end of the year more than 100 teachers had used these centers, and momentum was increasing. The handbook for producing and implementing the centers and the curriculum guides for the centers are included in the appendices to this report.

JUNIOR HIGH SCHOOL CAREER EDUCATION UNITS

While many junior high teachers incorporated career education activities into their on-going curriculum, usually it was basic studies classes who perceived the greatest correlation between their goals and career education goals. At Goodrich Junior High the Basic Studies teams rewrote their entire curriculum in order to infuse career education outcomes. These units were disseminated across the city. They are included in the appendices of this report.

A recent movement in Lincoln has attempted to provide additional guidance activities for students. The student-counselor ratio is high and counselors seem to be too busy to spend much time with students unless their problems are severe. Sparked by the pilot project in the Community School Model (Kettering) at East High School, many schools have now adopted the Teacher-Advisor system, in which each teacher meets regularly with 20-25 students and takes responsibility for their personal, educational, and social growth. The regular meetings with students soon necessitated the development of activities to use during these sessions. The project supported and led a task force of junior high Teacher-Advisors who constructed a set of activities in three parts: (1) orientation to junior high school, (2) personal/social growth activities, (3) career awareness and exploration activities. These units are included in the appendices of this report.

HIGH SCHOOL CAREER EDUCATION UNITS

In addition to the resource guides published for math, science, social studies, English, art, and foreign languages, individual teachers produced units for their own classrooms or departments.

At the high school level, curriculum/staff development workshops were held as previously described which produced guides in math, science, social studies, English, art and foreign language. These guides were then used by departments to assist teachers to infuse career education into their on-going teaching. In addition, the project contracted with a number of teachers and teams to produce specific career education-related units for use in classrooms or by departments. This effort fit well with a district-wide trend toward quarter-courses which permit a wider variety of subjects from students may choose. These units were written on such topics as Communications in the World of Work, Careers in Social Service Agencies, Decision-Making, and many other similar topics. Some of the better units are included in the appendices of this report.

PRODUCT AND PROCESS OBJECTIVES AND MAJOR TASKS (7) Career Information Centers

Each of the junior and senior high school installation plans called for the development and operation of Career Information Centers. These centers were established differently in each school but the general content of the centers were the same.

A task force to develop the concept of the Career Information Center was established by the project. The task force analyzed the literature on career information and career guidance and reviewed experiences in which members had observed centers in other locations such as San Diego, Boystown, etc. A concept paper was published outlining the phylosophy and characteristics of the centers. The central office of the project suggested numerous materials to be included and held a number of review sessions to analyze the materials. Local schools then purchased the materials they needed to supplement what they already had, and the project office continued to order inexpensive career information materials and distribute them to the schools.

The information centers include many college catalogs and other college oriented guidance materials. Most of the high schools have a comprehensive set of materials such as Chronicles, as well as many less complex materials. Most of the schools established a collection of materials both in the counseling center and in the media center. In the media center materials were arranged according to DOT code for easy access, and filmstrips and other media were included as well as pamphlets and other publications. In at least one school, small collections pertinent to specific subject areas were assembled on a movable display and located in the area of the appropriate area of the building for some time, then a new collection was made for location in another area. Local coordinators worked with departments to take advantage of these temporary collections.

At East High School this idea was worked into a more sophisticated program called Spotlight on Careers. Each month one or two departments emphasized career education and appropriate displays were mounted, materials collections displayed, and special events such as speaker visits in the community, and special projects scheduled. Spotlight on Careers gave a handle to the school to deal effectively with the problem caused by the fact that career education is such an over-reaching concept and involves the whole school so sometimes it is difficult to decide where and how to start.

The Career Information Centers will become a major element of programming in the revised guidance programs now being developed in the schools and described elsewhere in this report.

PRODUCT AND PROCESS OBJECTIVES AND TASKS (8) Pupil Data and Monitoring System

The first step in establishing a pupil data and monitoring system in addition to the system which already exists is to define the outcomes expected from our curriculum. These outcomes have been broadly defined in the scope and sequence of career education discussed in the curriculum sections of this report. Only in the latter stages of the project was there enough specificity about expected outcomes to outcomes to enable a monitoring system to be established.

However, the pupil data and monitoring system for general educational outcomes has been operating in the district for many years and is continually being upgraded. During the project items were added to the reporting system which indicate students progress in mastering career education outcomes, and school plans called for emphasis upon giving feedback to students on a regular basis, and associated with occupations as much as possible, so that students would both understand the importance of the development of learnings and also be able to judge their progress in mastering these career related learnings.

As development of a more comprehensive guidance program continues, additional progress will be made on this objective.

PRODUCT AND PROCESS OBJECTIVES AND TASKS (9) Assessing Guidance Needs of Students

Considerable dissatisfaction with the Lincoln Public Schools guidance program has been expressed in the past few years. The student-counselor ratio was high and counselors seemed too busy with attendance and behavior problems to provide career counseling. And much of the career counseling which was done seemed to focus on needs of college-bound students.

One attack on the problem of improving guidance services has been the Teacher-Advisor system pioneered at East High School as a part of the Learning Community Schools project to install the Kettering Model for high school at East. In this model teachers become advisors to 20-25 students and help students plan for their future in high school and beyond and serve as a facilitator to make certain students get the most out of their high school years. The project supported the expansion of this program into other schools, and similar programs were established in all of the project target schools but one during the life of the project.

As a part of the guidance emphasis of the project, procedures were worked out with the central Guidance Department to assess student needs with the Priority Counseling Survey, a service developed and marketed by Educator's Assistance Institute in California. This survey was administered to a sample of 8th, 9th, 10th, 11th, and 12th grade students and the results were used in two ways--the data about each student was filed with the student file and used in guidance and counseling sessions with the student, and the data generated about groups of students from specific grades and specific schools were used in program planning.

emphasis upon goals-based planning and specification of tasks and activities has influenced other district efforts as well. For instance during the life of the project the district added an assistant to the Director of Curriculum for assessment and also a Planning Specialist to the Evaluation Team.

Following up on the intention to bring changes in the total guidance program, the district commissioned a full-scale study of the total guidance program in 1975-76. An Assistant Principal for Student Services was assigned full time for a year to conduct the study. This report required 200 pages and more than that many pages of appendices. It included 57 specific recommendations for Lincoln's guidance program. The project did not do further needs assessment during this time, being assured that the study would be comprehensive and complete. During 1976-77 it will be the major job target of the Director of Guidance for the district to implement the recommendations made in this report. As in many other cases, the Career Education Project gave impetus and support to district intentions and efforts to solve problems and support to district intentions and efforts to solve problems and construct programs.

PRODUCT AND PROCESS OBJECTIVES AND TASKS (10) Individualized Career Planning

It has been the position of the project that most of the outcomes for students in career guidance could be summed up in a central task of assisting each student to develop, implement, and revise a systematic plan for career and educational development. During the project many elements of a program to achieve that general objectives were put in place and operated.

As described in a previous section, career information centers containing vastly expanded quanitities of career information were established in each school, providing resources for students, teachers, and counselors to use in career development and planning. Both teachers and counselors examined available instruments to provide information to a student about interests and aptitudes. Workshops were held by the project in which staff were oriented to instruments and trained in their use: Interest tests such as California Occupation Preference Survey, Kuder Interest Inventory, Picture Interest E, Survey and Aptitude inventories such as GATB, ASVAB, and Talent Assessment Program were analyzed, purchased by schools and used with students.

Career Exploration and planning programs were also purchased and installed. Those of particular note, to take a few from those which were generally associated with the career information center, were Career Information System, Occupational Viewdeck, and the Vocational Exploration Group. VEG is of particular importance because it is a comprehensive two-hour small group activity which takes 5 or 6 participants through all the steps in career planning. Two Lincoln persons were trained to train VEG leaders, and they trained nearly 100 teachers and counselors to lead VEG sessions. All of the 10th grade students at two

In general the data, as expected, showed that our schools were not providing enough help to students in the areas of career information and planning, and this result supported the intention of the schools to strengthen their career guidance program along with the general program of guidance. The Priority Counseling Survey was revised to shorten it and make it more applicable to the Lincoln situation, and has been used with Lincoln students to provide additonal information about students in the overall career education program of various schools.

PRODUCT AND PROCESS OBJECTIVES AND TASKS (11) Placement

Under the auspices of the Placement Component (the state-funded portion of the project) project staff assisted teachers to make efficient use of community resources through use of the Community Resource System and through various staff and curriculum development activities both of which have been previously described in this report.

In addition to this work, a model placement program was developed, piloted in one high school and expanded to a second high school.

The Placement model was developed by a community-wide task force to establish a program for placing exiting seniors in appropriate work. In the model (included as an appendix to this report) students were screened to identify those who needed the service, given placement counseling and in some cases training in job getting skills, and then referred to the Job Service for placement. In some cases in which a specific job opening was known, the student was directed to make application directly. Students were not ordinarily referred to jobs, nor was a direct effort made to establish a job bank; both of these responsibilities were considered roles of the Job Service, who cooperated with the school as much as possible including providing the microfiche list of job openings each day. Over the course of the project, job counseling was provided to several thousand high school students, and direct placement assistance was given to hundreds. During the last year of the project a concentrated effort was made to establish a placement service integrating Job Service, vocational preparation programs, and the guidance program. This model will be used as a part of the Experience Based Career Education Program which the district is now planning.

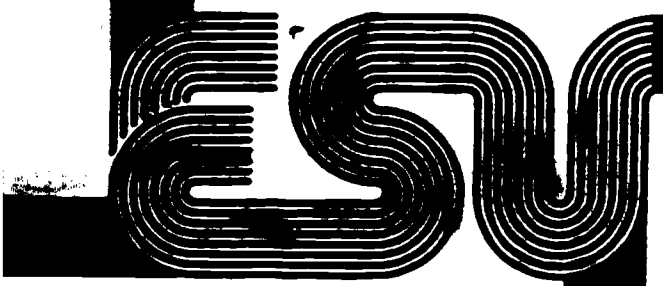
PRODUCT AND PROCESS OBJECTIVES AND TASKS (12) Management

In managing the project principles of systematic management were used. Whenever feasible long and short range systematic plans of work were constructed, implemented and revised as necessary. Staff members analyzed the goals of their work and the context in which those goals were to be achieved and then construct systematic procedures for achieving their goals. These plans were the basis of regular sessions between the staff member and the project director. When developing new materials or activities, attention was given to careful specification of the objectives and rationale, and written drafts were made of succeeding versions of the product to facilitate clear communication. The project

high schools (Lincoln High and East) received the VEG experience 1975-76 and all other project schools used it extensively. The major advantages of VEG are that it is "packaged" to the point that almost anyone can be trained in two days to use it, and it not only helps a student plan and gets commitments from students as to their "next step" but it also helps the student understand the process of decision-making about careers which can be used again and again as new decision points are reached.

In another activity the guidance sequence developed at Appalachia Educational Laboratory and now marketed by McKnight was piloted with a group of students. The major outcome of this experience was to help project staff become familiar with the steps of the decision-making/planning process. This knowledge is now being put to use as the district develops a more comprehensive career guidance program as a part of its overall program.

CAREER EDUCATION FINAL EVALUATION 1976



EVALUATION TEAM
Educational Service Unit No. 18
Lincoln Public Schools
Lincoln, Nebraska

SECTION 3

INTRODUCTION

The text of this report is organized around three evaluation questions. They are:

1. To what extent did the project effect the career education capabilities of the district?

2. What career education activities were provided for students?

3. What was the impact of the career education activities on students?

Each of the three questions is discussed in a separate section of this evaluation report. The conclusions and recommendations are presented in the fourth and final section.

Question 1: To what extent did the project effect the career education capabilities of the district?

The career education project influenced the career education capabilities of the Lincoln Public School in three significant ways. First, the project served to emphasize the importance of career education and increase the awareness of career education even among teachers and staff not actively involved in the project. Second, the project developed and/or assembled a large number of career education materials and resources that were made available to support career education activities implemented by classroom teachers. Third, the project provided career education inservice to a large number of teachers over the three year period.

The project emphasized career education in the district and in the community through the involvement of teachers, other staff, and community in the development of the project proposal. The activities undertaken in the development of the proposal included a district wide needs assessment and the formation of a community advisory committee. Teachers, administrators, students, and community all participated in the district wide needs assessment. The project also resulted in much favorable publicity regarding career education both in the community and in the district.

Significant materials and/or resources developed by the career education project included a career education curriculum center, a career information center in each high school, a community resource file, a model for providing career information to students, and a planning model and planning assistance for local schools. The career education curriculum center, the community resource file and the model for providing career information to students are now all funded by district

funds. Although planning resources are no longer available to local buildings, one side effect of the career education planning has been the development of the planning skills of local staff in the schools.

The career education project has also provided inservice to a large proportion of teachers over a three year period. The proportion of teachers who participated in career education inservice increased from approximately 50% in 1973-74 to between 75% and 80% in both the 1974-75 and 1975-76 school years. Sixty-three percent of the teachers surveyed in 1976 reported that they had spent nine or more hours in career education related inservice as compared with less than 20% of the teachers in 1974-75. No information was available on length of time spent in career education inservice in 1973-74. A greater proportion of district inservice was devoted to career education or related topics in 1975-76 than in 1974-75. The proportion of inservice devoted to career education also increased from 1973-74 to 1974-75.

As a result of the career education project there was increased emphasis on career education activities as indicated by the amount of inservice time devoted to the topic, the amount of career education materials available and the development of formal support mechanisms.

Question 2: What career education activities were provided for students?

The 1975-76 school year was the third year that a career education implementation survey was conducted. The format of the third year survey differed from the second year survey in that the survey was organized around seven general career education goals instead of the Treatment Group Outcome Area Table avocated in the Handbook for the Evaluation of Career Education Programs. Implementation information was also collected in less detail in 1975-76 than in 1974-75. A copy of the implementation survey can be found in Appendix 1.

Two hundred eighty-four teachers responded to the 1975-76 career education implementation survey. Eighty-five percent of the teachers surveyed indicated that they implemented career education activities in one or more of the Goal Areas. Approximately 75% of the teachers reported implementing at least one career education activity in both 1973-74 and 1974-75.

The results of the 1975-76 survey are summarized by the seven general goals in Table 1. Table 1 includes information regarding the percent of teachers that reported they implemented activities designed to achieve each of the seven goal areas and an estimate of the number of students that particiapted in the career education activities. Sixty-nine percent of the teachers reported that they had implemented activities designed to achieve Goal 4 (Career Information), while 27% of the teachers indicated that they had implemented activities designed to achieve Goal 7 (Placement). The percent of teachers implementing activities in the other five goal areas ranged from 43% to 62%. The number of students that participated in career education activities ranged from 2900 for Goal 7 to 12,800 for Goal 4. The number of students served in the other five goal areas ranged from 8,500 (Goal 5, Career Planning) to 11,500

(Goal 6, School-Career Relationship). The student counts are duplicated counts both between and within goal areas, however, (nearly) all of the high school students in the district participated in at least one career education activity for each goal area with the exception of Goal 7 (Job Placement). A majority of junior high students in career education target schools also participated in one or more career education activities.

Nineteen percent of the teachers surveyed indicated that they had implemented activities in all seven goal areas.* Fifteen percent indicated that they had implemented activities in six of the seven goal areas. Fifteen percent of the teachers indicated they had not implemented career education activities in any of the seven goal areas and 7% indicated that they had implemented career education activities in only one goal area.

An analysis of the implementation survey indicated that the career education activities actually implemented were very similar to the activities implemented during the 1974-75 school year. A narrative analysis of career education activities for 1974-75 can be found in Appendix 2. A list of actual career education activities can be found in Appendix 3.

*Six goal areas for elementary students. Goal 7, Placement, was not a viable goal area for elementary students.

TABLE 1

PERCENT OF TEACHERS THAT REPORTED IMPLEMENTING CAREER EDUCATION ACTIVITIES AND THE NUMBER OF STUDENTS THAT PARTICPATED IN THE ACTIVITIES BY THE SEVEN CAREER EDUCATION GOAL AREAS

GOAL AREA	No of Students that Participated	Percent of Teachers Implementing Activities
1. Assist students to discover their own interest and abilities in terms of various careers.	9200	62%
2. Assist students to discover their values and how they effect career choice and satisfaction.	9000	53%
3. Help students understand the importance of basic skills to career entry and success.	10400	60%
4. Help students know more about various careers.	12800	69%
5. Help students be better able to make career choices and to do career planning.	8500	43%
6. Help students see the relationship between skills taught in school and their application to various careers.	11550	61%
7. Help students be able to find, get and hold a job.	2900	27%

Question 3: What was the impact of the career education activities on students?

No student outcome data was collected during the first year of the project. Student outcomes were, however, incorporated into the second year evaluation design. The instruments used to estimate the impact of the career education program on students were selected from ones recommended in the Handbook for the Evaluation of Career Education Programs. The procedures recommended in the Handbook for the Evaluation of Career Education Programs, were used to identify appropriate student outcomes.

One significant deviation from the procedures recommended in the Handbook for the Evaluation of Career Education Programs was necessary. The Lincoln Career Education Project focused on supporting change at the local school building level, therefore, the Career Education activities (treatments) varied from school to school. Each building developed plans to implement a unique program of Career Education Activities. Consequently, the specific activities implemented at a school could not be accurately estimated until well into the school year. Even then the schools were free to determine how and when the activities were implemented. The procedures, outlined in the Handbook, however, assumed that target students could be accurately identified at the beginning of the school year.

The rest of the procedures were followed. General Career Education treatments were identified. School plans were then reviewed to determine which schools planned to implement which treatments, the Treatment Group Outcome Area Table completed, and the Outcome Question/ Treatment Group Matrix completed. The Outcome Question/Treatment

Group Matrix identifies the schools that, because of the career education activities they implemented, should be accountable for each of 36 student outcomes. The Treatment Group Outcome Area Table can be found in Appendix 4. The Revised Outcome Question/Treatment Group Matrix is presented in Appendix 5.

The central foci of the Lincoln Career Education Project as implemented were (a) an increased awareness of and knowledge about work and (b) increased career decision making and planning skills. The Lincoln Career Education Project also focused more on secondary schools, junior high and senior high schools, than on elementary schools.

Two instruments were selected for use in the career education evaluation. Both reflected the project emphasis on secondary level students. The two selected instruments were the Assessment of Career Development (ACD) and the Career Maturity Inventory (CMI).

The ACD includes five subscores structured around three aspects of career education. The three are:

- "Occupational awareness including occupational knowledge and exploratory occupational experiences,
- "Self-awareness including job values and preferences, career plans, self-evaluation of career planning and perceived needs for help with career planning,
- "Career Planning and Decision Making including career planning, knowledge and involvement in Career Planning Experiences."*

*Assessment of Career Development Handbook Users Guide and Report of Research, page 1.

The five subscores are:

- Subscore 1: Occupational Characteristics
- Subscore 2: Occupational Preparation Requirements
- Subscore 3: Exploratory Occupational Experiences [4]
- Subscore 4: Career Planning Knowledge
- Subscore 5: Career Planning Involvement

The CMI is constructed to "measure maturity of attitudes and competencies that are critical in realistic Career Making." The test includes five separate subtests and an attitude scale. The five subtests are:

- Part 1: Knowing Yourself (Self-Appraisal)
- Part 2: Knowing About Jobs' (Occupational Information)
- Part 3: Choosing a Job (Goal Selection)
- Part 4: Looking Ahead (Planning)
- Part 5: What Should They Do (Problem Solving)

Part 5 was not recommended by a USOE review panel and therefore, was not incorporated into the Career Education evaluation design. The correspondence between the subtests and subscore is summarized in Appendix 6 : Evaluation Design.

The two instruments selected, the Assessment of Career Development and the Career Maturity Inventory, were subsequently administered at the 9th and 12th grades in all Career Education Target schools and in selected control schools. The three control schools selected at the

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A separate score is also provided for each six occupational clusters. (1) social, health and personal services, (2) business sales and management, (3) business operation, (4) technologies and trades, (5) natural, social and medical science, (6) creative and applied arts.

Career Maturity Inventory, Administration and Use Manual, page 3.

junior high school level, 9th grade, were judged to be fairly representative of the four Career Education junior high schools. Only one control school was available at the senior high school level. The other four high schools in the city were Career Education target schools. Even then the control school was not judged to be a reasonable control for the four Career Education high schools. Many of the teachers from that high school participated in Career Education inservice and presumably implemented Career Education activities as a result of the inservices.

A rather complex matrix sampling plan was used to administer the two tests in both the Career Education and control schools, the sampling plan was developed and used to eliminate or at least alleviate staff concern about the amount of time to be spent testing students. The two tests selected, the ACD and CMI, require 230 minutes of actual testing time. The testing would take an additional 50-75 minutes to distribute and collect, read instructions, etc.

The sampling plan developed reduced testing time to a single 30 minutes testing period. The two tests were subdivided into eight subtests, Each student completed one of the subtests. There was one exception to this sampling arrangement. One school, because of a small enrollment, administered the test in two 30-minute periods. Each student at that particular school completed two of the eight subtests. The number of students responding to each subtest in each school is summarized in table form in Appendix 7.

The senior high control school, although officially not a target school, had a career education staff member assigned to it on a one-half time basis. A full time staff member was assigned to each of the other three public high schools.

The use of this sampling plan in the evaluation design had one serious shortcoming. Subsequent school by school analysis of the treatments revealed that treatments were not uniformly implemented within schools. A treatment consisted of one or more career education activities. Each career education effected one or more students. Rarely was any single activity designed to effect the entire school or even an entire grade level. More commonly the activities focused either on a particular classroom (one teacher and anywhere from 15 to 80 students), or a just part of a grade level (those 10th grades enrolled in a particular elective course).

Information on any one subtest was available for only 140-190 students. It was impossible to determine what percent of those students had participated in career education activities. The problem was not caused by the use of the sampling plan. If census testing had been conducted, each student took both tests in their entirety, the evaluator still would not have known which students participated in what career education activities. Instead what was needed was an accounting system to record each career education activity and identify the students that participated in that activity. Such a monitor system was beyond the scope of the evaluation. It is highly unlikely that such information could be reliable collected even if the resources, in terms of time and money, were available.

Analysis of the results was based on the outcome-instrument pairing in Table VI-A of the Handbook for the Evaluation of Career Education Programs.* The pairings discussed in this evaluation report are listed in Table 2.

*August 15, 1974 edition, pages 64-66.

TABLE 2

OUTCOME INSTRUMENT PAIRINGS UTILIZED IN THE 1974-75 and 1975-76 CAREER EDUCATION EVALUATIONS

Junior High School

Outcome*			Instrument(s)		
IV	A	Duties and abilities required	(1)	ACD	Subscore 1
			(2)	ACD	Subscore 3
			(3)	CMI	Part 1
			(4)	CMI	Part 2
IV	B	Work conditions	(1)	ACD	Subscore 1
IV	C	Entry requirements	(1)	ACD	Subscore 2
			(2)	CMI	Part 4
IV	D	Impact of social and technological change	(1)	ACD	Subscore 4
IV	E	Factors affecting success and satisfaction	(1)	CMI	Part 1
V	A	Relating own abilities to work possibilities	(1)	CMI	Part 1
			(2)	CMI	Part 3
V	B	Relating own interests and value to work possibilities	(1)	ACD	Subscore 3
			(2)	CMI	Part 1
			(3)	CMI	Part 3
V	C	Awareness and use of information sources	(1)	ACD	Subscore 4
			(2)	ACD	Subscore 5
V	E	Steps and factors in career planning	(1)	ACD	Subscore 4
			(2)	CMI	Part 1
V	F	Active involvement in career decision making	(1)	ACD	Subscore 5

Senior High School

III	B	Positive attitudes toward work	(1)	CMI	Attitude Scale
IV	A	Duties and abilities required	(1)	ACD	Subscore 1
			(2)	ACD	Subscore 3
			(3)	CMI	Part 1
			(4)	CMI	Part 2
IV	B	Work conditions	(1)	ACD	Subscore 1
IV	C	Entry requirements	(1)	ACD	Subscore 2
			(2)	CMI	Part 4
IV	D	Impact of social and technological change	(1)	ACD	Subscore 4
IV	E	Factors affecting success and satisfaction	(1)	CMI	Part 1

V	A	Relating own abilities to work possibilities	(1)	CMI	Part 1
			(2)	CMI	Part 3
V	B	Relating own interests and value to work possibilities	(1)	ACD	Subscore 3
			(2)	CMI	Part 1
			(3)	CMI	Part 3
V	C	Awareness and use of information sources	(1)	ACD	Subscore 4
			(2)	ACD	Subscore 5
V	E	Steps and factors in career planning	(1)	ACD	Subscore 4
			(2)	CMI	Part 1
V	F	Active involvement in career decision making	(1)	ACD	Subscore 5
VII	A	Awareness and use of information	(1)	ACD	Subscore 5

*Numbering system and descriptions used in Draft Handbook for the Evaluation of Career Education Programs.

A separate analysis was run for each of the 22 student outcomes. The results of the analysis and the conclusions based on the analysis were similar for all 22 outcomes. Therefore, to simplify this report, the results are presented and discussed in four sections: Ninth grade results on the CMI, Ninth grade results on the ACD, Twelfth grade results on the CMI, and twelfth grade results on the ACD. The results are presented and discussed by student outcome for each of the 22 outcomes listed in Appendix 8, Summary Data on Student Outcomes.

ANALYSIS OF NINTH GRADE RESULTS

CAREER MATURITY INVENTORY

Part I Knowing Yourself (Self-Appraisal)

The number of ninth grade students tested, the mean score and the standard deviation for students attending career education target schools and students attending control schools are presented by year in Table 3. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interactions (program by year). Summary data from the analysis of variance is presented in Table 4.

TABLE 3

COMPARISON OF SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART I OF KNOWING YOURSELF (SELF-APPRAISAL) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	98	69	
Mean Score	13.31	13.20	0.11
Standard Deviation	3.42	3.83	
Spring 1976			
Number of Students	118	70	
Mean Score	12.05	12.39	-0.34
Standard Deviation	4.22	4.36	
Difference Between Means	-1.26	-0.81	

TABLE 4

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON PART 1 KNOWING YOURSELF (SELF-APPRAISAL) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Program	3.040	1	3.040	0.200	NS
Year of test	122.345	1	122.345	8.000	$p < .01$
Interaction	0.766	1	0.766	0.050	NS
Residual	5337.855	349	15.295		
Total	5465.006	352	15.528		

The mean scores on Part 1 Knowing Yourself of the Career Maturity Inventory dropped significantly ($p < .01$) from the Spring 1975 to Spring 1976. The decrease however, was consistent across program. The mean of ninth grade students in career education target schools decreased by 1.26 raw score points, from 13.31 to 12.05. The mean score of ninth grade students in control schools dropped from 13.20 in 1975 to 12.39 in 1976. The career education students did not differ significantly from control students in either 1975 or 1976. Therefore it appears that there is basically no difference between ninth grade students in career education and control students with regard to self-knowledge but the district wide self-knowledge scores dropped from 1975 to 1976.

Part 2 Knowing About Jobs (Occupational Information)

The number of ninth grade students, tested the mean score and the standard deviation for students attending career education target schools and students attending control schools is presented by year in Table 5. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction (program by year). Summary data from the analysis of variance is presented in Table 6.

TABLE 5

COMPARISON OF SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART 2 KNOWING ABOUT JOBS (OCCUPATIONAL INFORMATION) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	92	67	
Mean Score	14.97	15.22	-0.25
Standard Deviation	3.33	3.62	
Spring 1976			
Number of Students	112	68	
Mean Score	14.98	14.23	0.75
Standard Deviation	3.39	4.69	
Difference Between Means	0.01	-0.99	

TABLE 6

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON PART 2· KNOWING ABOUT JOBS (OCCUPATIONAL INFORMATION) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	15.900	1	15.900	1.135	NS
Program	4.163	1	4.163	0.297	NS
Interaction	17.294	1	17.294	1.235	NS
Residual	4706.539	336	14.008		
Total	4743.184	339	13.992		

The mean scores of students attending Career Education target schools were identical in 1975 and 1976 while the mean scores of students attending control schools dropped by nearly 1.0 raw score point. In 1975 the control students scored higher by 0.25 and in 1976 the career education students scored higher by 0.75 raw score points. Neither of these differences were significant. Neither the program, year nor interaction affects tested by the ANOVA were significant. Apparently the differences between career education and control students and between Spring 1975 and Spring 1976 scores were no larger than could normally be expected by chance.

Part 3 Choosing a Job (Goal Selection)

The number of ninth grade students tested, the mean score and the standard deviation for students attending career education target schools and students attending control schools are presented by year in Table 7. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interactions (program by year). Summary data from the analysis of variance is presented in Table 8.

TABLE 7

COMPARISON OF SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART 3 CHOOSING A JOB (GOAL SELECTION) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	96	70	
Mean Scores	12.97	12.54	0.43
Standard Deviation	3.06	3.04	
Spring 1976			
Number of Students	99	73	
Mean Score	12.67	13.33	-0.66
Standard Deviation	3.53	2.99	
Difference Between Means	-0.30	0.79	

TABLE 8

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON PART 3 CHOOSING A JOB (GOAL SELECTION) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	0.990	1	.990	.099	NS
Program	1.046	1	1.046	.104	NS
Interaction	28.354	1	28.354	2.832	NS
Residual	3363.641	335	10.011		
Total	3394.017	338	10.012		

The mean score of students attending career education target schools dropped by 0.30 of a raw score point while the mean score of students attending control students increased by 0.80 of a raw score point. However, the differences between students attending career education and control students were not significant in either 1975 and 1976. The interaction effect was also not significant.

Part 4 Looking Ahead (Planning)

The number of ninth grade students tested, the mean score and the standard deviation for students attending career education target schools and control schools are presented by year in Table 9. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interactions (program by year). Summary data from the analysis of variance is presented in Table 10.

TABLE 9

COMPARISON OF SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART 4 LOOKING AHEAD (PLANNING) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Differences Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	94	70	
Mean Score	13.21	13.84	-0.63
Standard Deviation	3.65	3.15	
Spring 1976			
Number of Students	110	72	
Mean Score	13.05	13.25	-0.20
Standard Deviation	3.78	3.04	
Difference Between Means	-0.16	-0.59	

TABLE 10

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON PART 4 LOOKING AHEAD (PLANNING) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	9.980	1	9.980	0.854	NS
Program	10.843	1	10.843	0.928	NS
Interaction	1.023	1	1.023	0.088	NS
Residual	3951.323	338	11.690		
Total	3973.856	341	11.654		

Students attending control schools scored higher than students attending career education target schools on Part 4 of the Career Maturity Inventory in the Spring of 1975 and again in the Spring of 1976. The difference between students in career education and control schools, however, were not statistically significant. The scores of both career education and control students dropped from 1975 to 1976. Again neither drop was significant. None of the differences between career education and control students, and between 1975 and 1976 were larger than could be expected by chance fluctuation alone.

ASSESSMENT OF CAREER DEVELOPMENT

Subscore 1 Occupational Characteristics

The number of ninth grade students tested, the mean score and the standard deviation for students attending career education target schools and control schools are presented by year in Table 11. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interactions (program by year). Summary data from the analysis of variance is presented in Table 12.

TABLE 11

COMPARISON OF THE SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 1 (OCCUPATIONAL CHARACTERISTICS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Differences Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	87	66	
Mean Score	35.38	36.39	-1.01
Standard Deviation	8.70	9.96	
Spring 1976			
Number of Students	117	70	
Mean Score	33.90	33.80	0.10
Standard Deviation	8.62	8.76	
Difference Between Means	-1.48	-2.59	

TABLE 12

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON SUBSCORE 1 (OCCUPATIONAL CHARACTERISTICS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	95.770	1	95.770	1.188	NS
Program	77.040	1	77.040	0.955	NS
Residual	26935.445	334	80.645		
Total	27052.800	336	80.515		

The students in control schools scored approximately 1.0 raw score points higher in 1975 than did students attending career education schools, however, the mean scores were nearly identical in 1976. The mean scores of both the career education and control students dropped from 1975 to 1976. The mean decreased was approximately 1.5 raw score points for career education students and 2.6 raw score points for control students. None of the differences between students attending career education target schools and students attending control schools in either 1975 or 1976, were statistically significant.

Subscore 2 Occupational Preparation Requirements

The number of ninth grade students tested, the mean score, and the standard deviation for students attending career education target schools and control schools are presented by year in Table 13. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction (program by year). Summary data from the analysis of variance is presented in Table 14.

TABLE 13

COMPARISON OF THE SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 2 (OCCUPATIONAL PREPARATION REQUIREMENTS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Differences Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	87	66	
Mean Score	10.37	10.92	-0.55
Standard Deviation	3.21	3.18	
Spring 1976			
Number of Students	117	70	
Mean Score	10.68	10.36	0.32
Standard Deviation	2.95	3.62	
Difference Between Means	0.31	-0.56	

TABLE 14

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON SUBSCORE 2 (OCCUPATIONAL PREPARATION REQUIREMENTS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	0.783	1	0.783	0.076	NS
Program	6.312	1	6.312	0.614	NS
Residual	3433.183	334	10.279		
Total	3439.628	336	10.237		

The students attending career education target schools scored higher in 1976 than did the students attending control schools. In 1975 the students attending control schools had scored higher than the students attending career education target schools. The absolute differences were not large, 0.6 raw score points or less. Essentially there were no differences between students attending career education and control schools in either 1975 or 1976 and no differences between students in 1976 as compared to 1975.

Subscore 3 Exploratory Occupations

The number of ninth grade students tested, the mean score and the standard deviation for students attending career education target schools and control schools are presented by year in Table 15. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interactions (program by year). Summary data from the analysis of variance is presented in Table 16.

TABLE 15

COMPARISON OF THE SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 3 (EXPLORATORY OCCUPATIONS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Differences Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	78	64	
Mean Score	1.73	1.84	-.11
Standard Deviation	0.25	0.25	
Spring 1976			
Number of Students	114	73	
Mean Score	1.77	1.78	-.01
Standard Deviation	0.29	0.26	
Difference Between Means	0.04	0.06	

TABLE 16

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON SUBSCORE 3 (EXPLORATORY OCCUPATIONS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	0.046	1	0.046	0.622	NS
Program	0.233	1	0.233	3.137	NS
Interaction	0.166	1	0.166	2.235	NS
Residual	23.888	322	0.074		
Total	24.333	325	0.075		

The ninth grade students attending control schools reported that they participated in more exploratory occupational activities than did ninth grade students attending career education target schools in both 1975 and 1976. The differences between the control students and career education target schools decreased from 1975 to 1976. None of the differences between the means of the two groups for the two years were statistically significant.

Subscore 4 Career Planning Knowledge

The number of ninth grade students tested, the mean score and the standard deviation for students attending career education target schools and students attending control schools are presented by year in Table 17. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interactions (program by year). Summary data from the analysis of variance is presented in Table 18.

TABLE 17

COMPARISON OF THE SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 4 (CAREER PLANNING KNOWLEDGE) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	84	65	
Mean Score	25.25	25.54	-0.29
Standard Deviation	4.89	5.51	
Spring 1976			
Number of Students	106	71	
Mean Score	24.34	23.69	0.65
Standard Deviation	5.34	5.93	
Difference Between Means	-0.91	-1.85	

TABLE 18

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON SUBSCORE 4 (CAREER PLANNING KNOWLEDGE) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	41.696	1	41.696	1.414	NS
Program	2.600	1	2.600	0.088	NS
Residual	9439.098	320	29.497		
Total	9484.250	322	29.454		

The students attending career education target schools scored higher in 1976 than did the students attending control schools. In 1975 the students attending control schools had scored higher than the students attending career education target schools. The differences between the means were not large, -0.3 and 0.7 raw score points respectively, and were not statistically significant. The mean scores of both students attending career education target schools and students attending control schools dropped from 1975 to 1976. The differences between 1975 and 1976 results were not statistically significant. The scores varied no more then could have normally been expected by chance.

Subscore 5 Career Planning Involvement

The number of ninth grade students tested, the mean score and the standard deviation for students attending career education target schools and students attending control schools are presented in Table 19. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interactions (program by year). Summary data from the analysis of variance is presented in Table 20.

TABLE 19

COMPARISON OF THE SCORES OF NINTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF NINTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 5 (CAREER PLANNING INVOLVEMENT) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	86	64	
Mean Score	1.71	1.75	-0.04
Standard Deviation	0.36	0.35	
Spring 1976			
Number of Students	105	65	
Mean Score	1.73	1.68	0.05
Standard Deviation	0.32	0.36	
Difference Between Means	0.02	-0.07	

TABLE 20

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF NINTH GRADE RESULTS ON SUBSCORE 5 (CAREER PLANNING INVOLVEMENT) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	0.031	1	0.031	0.260	NS
Program	0.000	1	0.000	0.001	NS
Interaction	0.097	1	0.097	0.807	NS
Residual	37.360	310	0.121		
Total	37.488	313			

In 1975 the students attending control schools reported that they had participated in more career planning activities than did students attending career education target schools. However, in 1976 the career education students reported that they had participated in more planning activities than the students from control schools. The differences between 1975 and 1976 and between career education and control students were not, however, statistically significant.

ANALYSIS OF TWELFTH GRADE RESULTS

CAREER MATURITY INVENTORY

Part 1 Knowing Yourself (Self-Appraisal)

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and students attending control schools are presented by year in Table 21. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and the interaction effects (program by year). Summary data from the analysis of variance is presented in Table 22.

TABLE 21

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART 1 (SELF-APPRAISAL) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	88	42	
Mean Score	13.66	13.81	-0.15
Standard Deviation	3.22	3.31	
Spring 1976			
Number of Students	107	59	
Mean Score	14.39	13.03	1.36
Standard Deviation	3.86	3.58	
Difference Between Means	0.73	-0.78	

TABLE 22

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON PART 1 (SELF-APPRAISAL) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	11.400	1	11.400	.904	NS
Program	2.543	1	2.543	.202	NS
Interaction	4.236	1	4.236	.336	NS
Residual	3456.996	274	12.617		
Total	3475.176	277			

The mean score of twelfth grade students attending career education target schools increased by 0.7 raw score points while the mean score of twelfth grade students attending control schools dropped by 0.8 raw score points. In 1975 the students from career education schools had scored lower than the students from control schools. In 1976 they scored approximately 1.4 raw score points higher. These differences were not, however, statistically significant.

Part 2 Knowing About Jobs (Occupational Information)

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and for students attending control schools are presented by year in Table 23. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 24.

TABLE 23

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART 2 (OCCUPATIONAL INFORMATION) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	87	45	
Mean Score	16.78	17.78	-1.00
Standard Deviation	2.88	2.52	
Spring 1976			
Number of Students	103	49	
Mean Score	15.89	17.61	-1.72
Standard Deviation	3.87	1.96	
Difference Between Means	-0.89	-0.17	

TABLE 24

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON PART 2 (OCCUPATIONAL INFORMATION) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	30.957	1	30.957	3.363	NS
Program	90.131	1	90.131	9.790	$p < .01$
Interaction	10.164	1	10.164	1.104	NS
Residual	2384.371	259	9.206		
Total	2521.317	262	9.623		

The students attending control schools scored higher than students attending career education schools in both 1975 and 1976. The difference between the means of the career education and control students was 1.0 in 1975. The mean scores of both the career education and control students were lower in 1976 than they had been in 1975. The mean of the control students dropped by only 0.2 of a raw score point while the mean of the career education students dropped 0.7 of a raw score point. Consequently the students from career education schools scored 1.7 raw score points lower than the control students in 1976. The difference between career education and control students was statistically significant at the .01 level of confidence.

Part 3 Choosing a Job (Goal Selection)

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and for the students attending control schools are presented by year in Table 25. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 26.

TABLE 25

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART 3 (GOAL SELECTION) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	85	44	
Mean Score	14.09	13.59	0.50
Standard Deviation	3.80	3.10	
Spring 1976			
Number of Students	99	56	
Mean Score	13.86	14.59	-0.73
Standard Deviation	3.26	3.78	
Difference Between Means	-0.23	1.00	

TABLE 26

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON PART 3 (GOAL SELECTION) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	7.306	1	7.306	.682	NS
Program	1.841	1	1.841	.172	NS
Interaction	4.587	1	4.587	.428	NS
Residual	2818.439	263	10.716		
Total	2831.011	266			

In 1975 students attending career education schools schools scored higher on Part 3 of the CMI than did students attending control schools. In 1976 the mean score of students attending career education schools dropped by 0.2 of a raw score point, while the mean of students attending control schools increased by 1.0 raw score points. The net effect of these changes was that in 1976 the control students scored higher than the career education students. The differences between the two groups and the differences between 1975 and 1976 were not statistically significant.

Part 4 Looking Ahead (Planning)

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and for students attending control schools are presented by year in Table 27. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 28.

TABLE 27

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON PART 4 (PLANNING) OF THE CAREER MATURITY INVENTORY

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	88	40	
Mean Score	13.94	13.18	0.76
Standard Deviation	3.82	4.13	
Spring 1976			
Number of Students	111	50	
Mean Score	12.92	13.70	-0.78
Standard Deviation	4.50	3.99	
Difference Between Means	-1.02	0.52	

TABLE 28

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON PART 4 (PLANNING) OF THE CAREER MATURITY INVENTORY

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	39.120	1	39.120	2.376	NS
Program	0.246	1	0.246	0.015	NS
Interaction	41.804	1	41.804	2.540	NS
Residual	4428.117	269	16.		
Total	4509.062	272	16.577		

In 1975 students attending career education schools scored higher on Part 4 of the CMI than did students attending control schools. In 1976 this trend was reversed. The mean score of students attending control schools increased by 0.5 raw score points while the mean score of students attending career education schools dropped by 1.0 raw score points. The 0.8 raw score point advantage for career education students that was recorded in 1975 became a 0.8 deficit. These differences were not statistically significant, however, the program by-year interaction approached (but did not reach) significance.

Attitude Scale

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and for students attending control schools are presented in Table 29. Multiple Matrix sampling procedures were used to estimate the students mean in both career education and control schools. The standard pooled variance t test was used to test the significance of the differences between career education and control schools and between 1975 means and the 1976 means.

TABLE 29

COMPARISON OF SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON THE CAREER MATURITY INVENTORY ATTITUDE SCALE

	STUDENTS ATTENDING		Difference Between Mean
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students[1]	250	146	
Adjusted Number[2]	62	36	
Mean Score	35.85	37.18	-1.33
Standard Deviation	5.66	3.94	
Spring 1976			
Number of Students[1]	339	154	
Adjusted Number[2]	84	38	
Mean Score	36.01	36.72	-0.71
Standard Deviation	5.11	4.68	
Difference Between Mean	0.16	-0.46	

[1] The total number of students tested.

[2] The total number of students divided by 4, the number of matrix subtests, to give N in total test equivalencies.

In 1975 the mean score of students attending control schools was 1.3 raw score points higher than the mean score of students attending control schools. However, in 1976 the mean score of students attending career education schools increased by approximately 0.2 while the mean of control students decreased nearly 0.5. The mean for control students was still higher, however, the 1976 difference between the group was only about one-half as large as the 1975 difference. None of the differences between groups (career education versus control) or between years (1975 versus 1976) were statistically significant.

ASSESSMENT OF CAREER DEVELOPMENT

Subscore 1 Occupational Characteristics

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and for students attending control schools are presented in Table 30. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 31.

TABLE 30

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 1 (OCCUPATIONAL CHARACTERISTICS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	80	41	
Mean Score	40.65	39.93	0.72
Standard Deviation	8.83	11.64	
Spring 1976			
Number of Students	101	53	
Mean Score	38.69	36.17	2.52
Standard Deviation	9.59	10.36	
Difference Between Means	-1.96	-3.76	

TABLE 31

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON SUBSCORE 1 (OCCUPATIONAL CHARACTERISTICS) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	242.236	1	242.236	2.552	NS
Program	6.267	1	6.267	0.066	NS
Residual	24681.894	260	94.930		
Total	25039.535	262	95.571		

The students attending career education target schools scored higher than students attending control schools in both 1975 and 1976. The scores of both the career education and control groups were lower in 1976 than they had been in 1975. The scores of the students attending control schools dropped more drastically than did the scores of students attending career education target schools (3.8 raw score points compared to 2.0 raw score points). None of the differences, either between groups or between years, were statistically significant.

Subscore 2 Occupational Preparation

The number of twelfth grade students tested, the mean score and the standard deviation of students attending career education target schools and of students attending control schools are presented in Table 32. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 33.

TABLE 32

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 2 (OCCUPATIONAL PREPARATION) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	80	41	
Mean Score	12.15	11.90	0.35
Standard Deviation	2.90	3.32	
Spring 1976			
Number of Students	101	53	
Mean Score	12.00	11.09	0.91
Standard Deviation	3.58	3.58	
Difference Between Means	-0.15	-0.81	

TABLE 33

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON SUBSCORE 2 (OCCUPATIONAL PREPARATION) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	8.074	1	8.074	0.712	NS
Program	3.099	1	3.099	0.273	NS
Interaction	8.626	1	8.626	0.761	NS
Residual	2948.278	260	11.340		
Total	2968.077	262	11.329		

The students attending career education target schools scored higher than students attending control schools in both 1975 and 1976. The scores of both the career education and control groups were lower in 1976 than they had been in 1975. The mean score of students attending control schools dropped more drastically than did the scores of students attending career education target schools (.2 raw score points compared to .8 raw score points). None of these differences, either between groups or between years, were statistically significant.

Subscore 3 Exploratory Occupational Experience

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and for students attending control schools are presented in Table 34. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 35.

TABLE 35

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 3 (EXPLORATORY OCCUPATIONAL EXPERIENCE) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	76	41	
Mean Score	1.78	1.79	-0.01
Standard Deviation	0.27	0.29	
Spring 1976			
Number of Students	94	48	
Mean Scores	1.70	1.77	-0.07
Standard Deviation	0.28	0.26	
Difference Between Means	-0.08	-0.02	

TABLE 35

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON SUBSCORE 3 (EXPLORATORY OCCUPATIONAL EXPERIENCE) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	0.143	1	0.143	1.787	NS
Program	0.073	1	0.073	0.906	NS
Interaction	0.084	1	0.084	1.047	NS
Residual	18.792	234	0.080		
Total	19.092	237	0.081		

The number of exploratory occupational experiences reported by twelfth grade students attending career education target school in 1975 and the number reported by twelfth grade control students in both 1975 and 1976 were almost identical. The ratios provided in Subscore 3 of the ACD varied by only 0.02 for the three groups (career education in 1975, control in 1975, and control in 1976). The ratio based on exploratory occupational experiences reported by career education students in 1976 was lower than the other three ratios. The differences between year, 1975 versus 1976, and group, career education versus control, however, were not statistically significant.

Subscore 4 Career Planning Knowledge

The number of twelfth grade students tested, the mean score and the standard deviation for students attending career education target schools and for students attending control schools are presented in Table 36. Analysis of variance procedures were used to test the significances of observed program effects (career education versus control), differences between years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 37.

TABLE 36

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 4 (CAREER PLANNING KNOWLEDGE) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		Difference Between Means
	Career Education Schools	Control Schools	
Spring 1975			
Number of Students	83	42	
Mean Score	27.29	27.93	-0.64
Standard Deviation	5.60	4.59	
Spring 1976			
Number of Students	113	49	
Mean Score	26.47	27.14	-0.67
Standard Deviation	5.79	5.75	
Difference Between Means	-0.82	-0.79	

TABLE 37

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON SUBSCORE 4 (CAREER PLANNING KNOWLEDGE) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	4.800	1	4.800	0.153	NS
Program	53.375	1	53.375	1.703	NS
Residual	8526.148	272	31.346		
Total	8580.645	274	31.316		

The students attending control schools scored approximately 0. raw score points higher in 1975 than students attending career education target schools. Both the students in control schools and the students in career education target schools scored lower in 1976 than they had in 1975. The differences between the means of the two groups in 1976 was nearly identical to the 1975 differences. None of the differences were statistically significant.

Subscore 5 Career Planning Involvement

The number of twelfth grade students tested, the mean score, and the standard deviation of students attending career education target schools and of students attending control schools are presented in Table 38. Analysis of variance procedures were used to test the significance of observed program effects (career education versus control), differences bewteen years (Spring 1975 versus Spring 1976), and interaction effects (program by year). Summary data from the analysis of variance is presented in Table 39.

TABLE 38

COMPARISON OF THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CAREER EDUCATION TARGET SCHOOLS WITH THE SCORES OF TWELFTH GRADE STUDENTS ATTENDING CONTROL SCHOOLS BY YEAR ON SUBSCORE 5 (CAREER PLANNING INVOLVEMENT) OF THE ASSESSMENT OF CAREER DEVELOPMENT

	STUDENTS ATTENDING		
	Career Education Schools	Control Schools	Difference Between Mean
Spring 1975			
Number of Students	79	40	
Mean Score	1.93	2.04	
Standard Deviation	0.38	0.34	-0.11
Spring 1976			
Number of Students	104	54	
Mean Score	1.90	1.91	
Standard Deviation	0.37	0.36	-0.01
Difference Between Means	-0.03	-0.13	

TABLE 39

SUMMARY TABLE FOR 2x2 ANALYSIS OF VARIANCE OF TWELFTH GRADE RESULTS ON SUBSCORE 5 (CAREER PLANNING INVOLVEMENT) OF THE ASSESSMENT OF CAREER DEVELOPMENT

Main Effects	Sum of Squares	DF	Mean Squares	F	Level of Significance
Year of test	0.297	1	2.159	2.159	NS
Program	0.236	1	1.711	1.711	NS
Interaction	0.049	1	0.356	0.356	NS
Residual	34.166	248	0.194		
Total	34.749	251			

The twelfth grade students attending career education target schools reported participation in fewer career planning activities in 1975 than did the students attending control schools. Although the difference in participation ratios was relatively large, 0.11 on a scale that could vary from 1.00 to 3.00, it was not statistically significant. The 1976 difference between the two groups dropped to 0.01. The major change from 1975 to 1976 was a 0.13 drop in the participation ratio of control schools. The 1976 participation ratio of control students was 2.04 as compared with a 1976 ratio of 1.91 and career education participation ratio of 1.93 (1975) and 1.90 (1976). None of the differences either by year or program, were statistically significant.

Discussion of Student Outcomes

The general conclusions to be drawn from the comparison of career education students with control students in both 1975 and 1976 on both ACD and the CMI is that there were no statistically differences between either the career education and control students or the 1975 and 1976 testing times. Eighteen 2x2 ANOVA were used to test 36 main effect (program and year for two grade levels for nine subtests) and 18 interactions. Four separate t-tests were used to test the significance of student attitudes. Only two significant differences were found. The 1976 ninth grade scores on Part 1 (Self-Appraisal) of the CMI were significantly lower than the 1975 scores and the twelfth grade control students scored higher than career education students on Part 2 (Occupational Information) of the CMI. None of the other differences were statistically significant.

Significant differences can be expected to occur by chance for a certain, (predictable) proportion of the tests. If a 95% confidence level is used then one test in twenty can be expected to be significant even if there are no real differences between groups. Since only 2 of 58 tests were significant it is very unlikely that there are any important differences between either groups (Career education versus control) or year (1975 versus 1976).

Although there were no systematic significant differences between career education and control groups on either of the two tests, generalizability of the results depends on the answers to three questions: a) Were the instruments used in the evaluation appropriate?, b) Were the sampling procedures appropriate?, and c) Were the control groups incorporated into the design appropriate for the career education evaluation?

The two instruments used were both recommended in the Handbook for the Evaluation of Career Education Programs. The ten subtests were identified in the Handbook as appropriate for 11 of the 18 career education goals. The two instruments are, however, more cognitive than affective, more hypothetical than real-life. The career education project emphasized attitudes towards careers and the actual development of career plans. However, none of the other instruments listed in the Handbook more closely paralleled the goals of the Lincoln Career Education Project.

A multiple matrix sampling plan was used to collect all student data. The data was used to estimate the mean and variance of students attending the career education target schools and students attending control schools as well as for each individual school. Data was collected by school. Not all students within a school participated in the same career education activities and not all schools implemented the same sets of activities. It was therefore, impossible to determine what percent of the students responding to each subtest actually participated in a career education activity designed to effect the outcome. The problem was not caused by the use of the matrix sampling plan. Even if a census testing plan had been used, the evaluators would still not know which students participated in what activities. The problem could have been circumvented either by (1) assigning students to activities and testing only the actual participants or (2) testing every one on all subtests and closely monitoring participation in each activity.

The third possible source of contamination were the control groups. Only one control school was available at the senior high school level. The other four high schools were (self) selected as career education target schools. Even then, a significant number of teachers from the control schools participated in career education inservice programs and

all teachers in the control schools were free to use central office career education materials. The only difference between the career education and control school was the level of support. Target schools had half-time coordinators assigned to help in career education planning and to support local teachers. The control group problem was not as severe at the junior high level. Three control schools were selected. Junior high teachers in control schools, however, also had access to district-wide career education resources including inservice programs.

Analysis of the three confounding factors in the evaluation leaves the generalizability of the student outcomes data open to question.

Conclusion

1. The Career Education Project developed and implemented a number of mechanisms to support the career education efforts of teachers and schools.

2. The Lincoln Career Education Project has resulted in a significant increase in the number of career education activities within the district. Both the number of activities and the number of students that participated in career education activities increased steadily from 1973-74 to 1975-76.

3. There were no significant changes in the ten student outcomes measures incorporated into the evaluation design. Students attending career education target schools did not differ from students attending control schools and there were no systematic differences between 1975 and 1976.

4. Traditional research and evaluation procedures are not appropriate for the evaluation of a project based on change support process. The traditional procedures assume control over implementation that is purposely avoided in the change support process.

5. The Lincoln Career Education Project resulted in the increased use of planning as a means of systematic curriculum modification.

6. Changes are slow to be integrated into the regular program. The accomplishments of the first year of the program include creating an awareness of career education. It was only towards the end of the project that the career education activities and innovations were being fully implemented and integrated into the normal program. Many of the career education programs and/or activiaties developed by the project have now been incorporated into the regular district program. In all probability the full impact of the project has not yet been felt.

7. The change support process is an appropriate model for implementing existing programs. It is not an appropriate model for developmental activities particularly if implementation and development are expected to occur simultaneous.

Recommendations

The following recommendations are based on experience during the three years of the project. The recommendations are appropriate to schools trying to implement similar career education process.

1. More attention should be given to the planning of career education activities. The change support requires planning and the career education project emphasized planning. However, even a greater proportion of the project's resources should have been allocated to planning and more emphasis should have been placed on involving individuals in leadership positions.

2. More attention should be given to the development and implementation of a systematic plan for staff development. A standard format and set of experiences should probably have been prescribed. Although such an approach would have been counter to the change support philosophy of the project, it would have provided a commonality of experience upon which to base career education programs.

3. The community resource file should be centrally located and directed through the central office. The continued availability of community resources depends upon efficiency and effectiveness in the use of resources. This facet of the program could best be managed through the central office.

APPENDIX 1

Implementation Survey

APPENDIX I

Lincoln Public Schools
Lincoln, Nebraska

CAREER EDUCATION PROJECT – TEACHER FEEDBACK

The Lincoln Career Education Project is in its third and final year. The Project staff and the ESU No. 18 Evaluation Team are trying to document the degree to which career related activities are taking place within the schools in Lincoln. Please complete the following questionnaire. The questionnaire is the only instrument that will be used to collect this information. Thank you for your cooperation.

1. Name: _____

2. School: _____

3. Grade Level to which you are assigned (check one)
   K – 6 _____
   7 – 9 _____
   10 – 12 _____

4. Were you teaching in the Lincoln Public Schools last year?
   1. _____ Yes
   2. _____ No

5. Are you part of the guidance and counseling staff?
   1. _____ Yes
   2. _____ No

6. Have you attended any inservice activities to familiarize you with career education concepts and basic methodology of career education in the schools? (This includes such activities as midyear or summer workshops, meetings with the Career Education staff, departmental meetings related to Career Education, Career Education related to guidance, etc.)
   1. _____ Yes
   2. _____ No

7. If you answered "Yes" to Number 6, please estimate the number of hours you have spent in in-service.

   Estimated number of hours _____

The Lincoln Career Education was committed to working towards eight general student goals. Each teacher was allowed to work towards any or all of these goals. The Project tried only to provide inservice, materials and motivation. Please identify the career education oriented activities you used in your class (school) this year. List the activities regardless of whether or not the origin of the activities can be traced to the project and regardless of whether or not you used the activities or similar activities prior to the project.

Your coordinator or building representative has a complete list of Career Education activities reported by teachers and counselors the last years. He or she also should have a copy of your school Career Education plan. Please feel free to refer to either of the two documents.

GOAL 1. Assist students to discover their own interest and abilities in terms of various careers.

Did you conduct one or more activities in your classroom designed to achieve Goal 1? Yes ___ No ___

If yes, a) How many students were involved? _____
b) Please describe all Goal 1 activities you used on the last page.

GOAL 2. Assist students to discover their values and how they effect career choice and satisfaction.

Did you conduct one or more activities in your classroom designed to achieve Goal 2? Yes ___ No ___

If yes, a) How many students were involved? _____
b) Please describe all Goal 2 activities you used on the last page.

GOAL 3. Help students understand the importance of basic skills to career entry and success.

Did you conduct one or more activities in your classroom designed to achieve Goal 3? Yes ___ No ___

If yes, a) How many students were involved? _____
b) Please describe all Goal 3 activities you used on the last page.

GOAL 4. Help students know more about various careers.

Did you conduct one or more activities in your classroom designed to achieve Goal 4? Yes ___ No ___

If yes, a) How many students were involved? _____
b) Please describe all Goal 4 activities you used on the last page.

GOAL 5. Help students be better able to make career choices and to do career planning.

Did you conduct one or more activities in your classroom designed to achieve Goal 5? Yes ___ No ___

If yes, a) How many students were involved? _____
b) Please describe all Goal 5 activities you used on the last page.

GOAL 6. Help students see the relationship between skills taught in school and their application to various careers.

Did you conduct one or more activities in your classroom designed to achieve Goal 6? Yes ___ No ___

If yes, a) How many students were involved? _____
b) Please describe all Goal 6 activities you used on the last page.

GOAL 7. Help students be able to find, get and hold a job.

Did you conduct one or more activities in your classroom designed to achieve Goal 7? Yes ___ No ___

If yes, a) How many students were involved? _____
b) Please describe all Goal 7 activities you used on the last page.

GOAL NUMBER	ACTIVITY DESCRIPTION: One or two sentence description of the Activit

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APPENDIX 2

Narrative Analysis of 1974-75 Career Education Activities

APPENDIX 2

Excerpts from 1974-75 Evaluation Report.

QUESTION 2. What career education activities were provided for students?

Both the implementation data discussed in this section of the report and the data on the effect of the program on students discussed in the next section were organized around the nine Career Education Objectives and Associated Student Outcomes identified in the *Handbook for the Evaluation of Career Education Program.*[2] The project staff developed a list of statements describing general Career Education treatments, (career education oriented activities). The list included a total of 36 general treatments. The treatments covered eight of the nine career education goal statements. No treatments were developed to achieve goal statement 6, The Development of Good Work Habits and only one treatment was developed to achieve goal statement 2, Increased Academic/Vocational Skills. One or more of the target schools implemented each of the 36 general treatments.

Each of the target schools was asked to identify those general treatments it was trying to implement. The list of general treatments and the list of target schools that eventually implemented the general treatments are presented by Career Education Goal Statement in Table 2. The same information is presented in more detail in the Revised Treatment Group-Outcome Area Table presented in Appendix 1. A summary of the evaluation design, which also identifies those career education target schools accountable for each outcome, is found in Appendix 2.

The Revised Treatment Group-Outcome Area Table differs from the original Treatment Group Outcome Area Table in that the original table was based on the school plans and reflected what the schools intended to do in the area of Career Education. The revised table is based on the end-of-year analysis of what activities actually were implemented during the year. For the most part the career education activities planned were implemented. There were, however, exceptions. End of year reports of implementation status were submitted for six of the ten career education target schools. The six schools submitting reports included one elementary school, two junior high schools, and three senior high schools. The career education target schools included one elementary school, two junior high schools, three high schools, a combination elementary-junior high school and a combination junior-senior high school. The elementary school reported that it actually implemented seven of the eight general career education treatments identified in its education plan. The two junior high schools reported implementing 28 of 30 or 93% of the planned career education treatments. In addition, the junior high schools reported that they actually implemented four career education activities that were not included in their original plans. The three senior high schools reported implementing 46 of 54 or 85% of the planned activities and one activity that was not included in the original plans.

The implementation data provided by the six schools also included descriptions of specific activities that constituted implementation of general treatments. The specific activity descriptions included information

[2] August 15, 1974, edition, pages 6-8.

TABLE 2

General Educational Treatments Incorporated Into The Lincoln Career Education Program By Goal Statement By School

I. STUDENTS WILL DEMONSTRATE INCREASED SELF AWARENESS.

Treatments:	Schools:
1. Infusion of activities into existing curriculum directed toward assisting students to discover their own interests and abilities in terms of careers.	Goodrich, Mickle, East, Lincoln High, Northeast
2. Infusion of activities into learning resource centers directed toward assisting students to discover their own interest and abilities in terms of careers.	Brownell
3. Use of the "Valuing Approach to Career Education."	Blessed Sacrament
4. Use of Project Discovery Program	Goodrich, Mickle
5. Use of "Vocational Exploration Group" Program.	East, Mickle, Northeast, Lincoln, Pius
6. A program of interest and aptitude testing with a mechanism of feed-back and guidance to students based on results.	East, Goodrich, Mickle, Blessed Sacrament
7. Student assessment center	Pius
8. Infusion of valuing activities in Teacher Advisor Program.	Pius
9. A program of interest and aptitude testing with a mechanism of feed-back and guidance to students based on results.	Lincoln High, East, Northeast, Pius
10. Interest and aptitude testing program with guidance/advisor assistance based on results.	East, Northeast, Pius
11. Infusion of activities into existing curriculum directed toward assisting students to discover what values effect career choice and to discover their own values.	Goodrich, Mickle

II. STUDENTS WILL DEMONSTRATE INCREASED COMPETENCY IN BASIC ACADEMIC/VOCATIONAL SKILLS.

Treatment:	Schools:
1. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.	East, Goodrich, Mickle

III. STUDENTS WILL DEMONSTRATE INCREASED AWARENESS OF WORK VALUES AND POSSESS A DESIRE TO ENGAGE IN PAID AND/OR UNPAID WORK.

Treatment:	Schools:
1. Infusion of activities into existing curriculum directed toward developing in students a positive attitude toward work and working.	Brownell, Goodrich, Northeast

III. Continued

Treatment:	Schools:
2. Infusion of Activities into learning resource centers directed toward developing in students a positive attitude toward work and working.	Brownell, Lincoln High
3. Use of the "valuing Approach to Career Education."	Blessed Sacrament
4. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.	East, Northeast, Lincoln High

IV. STUDENTS WILL DEMONSTRATE INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK.

Treatment:	Schools:
1. Infusion of activities into existing curriculum directed toward providing students an awareness of careers.	Brownell, East, Goodrich, Mickle, Northeast, Lincoln High
2. Use of Career Education field trips directed towards providing students an awareness of various careers.	Brownell, Blessed Sacrament, East, Goodrich, Mickle, Northeast, Lincoln High.
3. Use of Career Education resource speakers directed toward providing students an awareness of various careers.	Brownell, Blessed Sacrament, East, Goodrich, Mickle, Northeast, Lincoln High, Pius
4. Infusion of activities into learning resource centers directed toward providing students in awareness of various careers.	Brownell
5. Use of "Career Day" directed toward providing an awareness of various careers.	Northeast
6. Infusion of activities into existing curriculum directed toward assisting students to discover what values effect career choice and to discover their own values.	Goodrich, Mickle
7. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.	Northeast, Lincoln High, East, Goodrich, Mickle
8. Use of a specific program of preparation and follow-up directed towards providing students community based experience of indepth study of selected careers.	Goodrich, Mickle, Pius
9. Infusion of activities into existing curriculum directed toward providing hands on experience in job tasks of selected careers.	East
10. Infusion of career information into "Individualized Industrial Arts Program."	Goodrich
11. Use of the "World of Construction Program."	East, Goodrich, Mickle
12. Use of the World of Manufacturing Program."	Goodrich, Mickle
13. Use of the "Project Discovery Program."	Goodrich, Mickle

IV. Continued

Treatment:	Schools:
14. Career Information Centers directed toward providing students an awareness of various careers.	East, Northeast, Pius
15. Use of Career Information Centers to provide students with in-depth information about careers including such items as pay, working hours, entry level criteria, etc.	East, Northeast, Lincoln High, Pius

V. STUDENTS WILL DEMONSTRATE INCREASED COMPETENCY IN CAREER DECISION-MAKING SKILLS.

Treatment:	Schools:
1. Infusion of activities into existing curriculum directed toward assisting students to discover their own interests and abilities in terms of careers.	Goodrich, Mickle, East, Lincoln High, Northeast
2. Infusion of activities into learning resource centers directed toward assisting students to discover their own interest and abilities in terms of careers.	Brownell
3. Infusion of activities into existing curriculum directed toward assisting students to understand the relationship between skills taught in school and their application in various careers.	East, Goodrich, Mickle, Northeast, Lincoln High
4. Infusions of activities into existing curriculum directed toward developing in students basic career decision-making skills.	Goodrich, Mickle, East, Lincoln High
5. Use of "Vocational Exploration Group" Program.	East, Mickle, Northeast, Lincoln High, Pius
6. Student assessment center.	Pius
7. Infusion of activities into existing curriculum directed toward assisting students to discover what values affect career choice and to discover their own values.	East, Northeast, Lincoln High
8. Infusion of valuing activities in Teacher Advisor Program.	Pius

VI. STUDENTS WILL DEMONSTRATE GOOD WORK HABITS.

VII. STUDENTS WILL DEMONSTRATE WORK-SEEKING AND WORK-GETTING SKILLS.

Treatment:	Schools:
1. Provide students assistance in course selection based on their interests and abilities.	Goodrich
2. Use of "Vocational Exploration Group" Program.	Northeast, Lincoln High, East, Mickle, Pius
3. Co-op education programs.	East, Lincoln High
4. Paid and non-paid community placements.	East, Northeast, Lincoln High, Pius

VII. Continued

Treatment:	Schools:
5. Guidance/advisor assistance in course selection based on career interest aptitude and goals.	East, Northeast, Lincoln High, Pius

VIII. STUDENTS WHO ARE LEAVING THE FORMAL EDUCATION SYSTEM WILL BE SUCCESSFUL IN BEING PLACED IN A PAID OCCUPATION, IN FURTHER EDUCATION, OR IN UNPAID WORK THAT IS CONSISTENT WITH THEIR CURRENT CAREER EDUCATION.

Treatment:	Schools:
1. Exiting Placement Program	East, Northeast, Lincoln High, Pius

IX. STUDENTS WILL BE AWARE OF MEANS AVAILABLE FOR CONTINUED EDUCATION ONCE THEY HAVE LEFT THE FORMAL EDUCATIONAL SYSTEM.

Treatment:	Schools:
1. Exiting Placement Program.	East, Northeast, Lincoln High, Pius

about (a) who implemented the specific treatment (by title, not name), (b) how or what they did, and (c) the total number of students effected. Examples of specific career education activities are listed by level (elementary, junior high, and senior high) in Appendix 3, Summary of Implementation Information.

The activity descriptions provided by the schools vary considerably in level of generality and style. The descriptions include use of separate programs like "World of Construction" and "World of Manufacturing," or the "Vocational Exploration Program." They also include examples of classroom activities such as an English teacher using (a) a unit on linguistics organized around career possibilities, (b) role playing interviews for jobs to give students a better understanding of how individuals are selected for jobs. A more complete list is presented in Appendix 3.

An implementation questionnaire was also distributed to teachers in career education target schools. A copy of the questionnaire can be found in Appendix 4. The questionnaires were returned by 394 teachers. The survey covered both in-service in career education, and implementation of career education activities with students.

Three hundred eleven teachers or 79% reported that they had attended a career education in-service. Three fourths of the teachers reported that they had spent more than two hours in career education in-service. Fifty percent reported spending seven or more hours in career education and one-fourth reported spending nine or more hours in career education in-service. In a similar survey of 278 teachers in career education target schools conducted the previous year, only 42% reported participating in career education in-service.

Two hundred ninety or 74% of the responding teachers reported that they had planned and carried career education activities during the 1974-75 school year. Three fourths of the 290 teachers that had carried on career education activities reported that they carried on two or more activities. Fifty percent reported carrying out five activities and 25% reported carrying out 13 or more activities. Comparable information on the number of career education activities planned and carried out was not available for 1974.

Two hundred eighteen or 56% of the responding teachers reported that they had utilized resource persons from the community. Seventy five percent of the teachers that utilized resource teachers used two or more resource teachers. Fifty percent used four or more resource persons from the community and twenty-five percent used eleven or more resource persons. The previous year only 35% of the teachers reported that they had used career education resource persons. The number of resource persons that the teachers reported using doubled from 1973-74 when the teachers reported using approximately 450 resource persons to 1974-75 when the teachers reported using nearly 900 resource persons.

On the basis of the analysis of the career education implementation plans and the implementation report the following generalizations were made about career education in the Lincoln Public Schools:

1. The Lincoln Career Education Program has resulted in a significant increase in the amount and diversity of career information being made available to students. Smaller gains have been made in the area of career exploration, in actual career preparation and in career planning.

2. The Lincoln Career Education Program has resulted in the reclassification of classroom activities that have been used for years as Career Education activities. Consequently it is impossible to determine the exact extent of the impact of the project on target schools.

3. Based on the numbers of participants reported by schools for the 1973-74 and the 1974-75 school years, the following conclusions are warranted:

   (a) The Career Education Project has reached a significant number of students, and

   (b) The number of students reached increased significantly from 1973-74 to 1974-75.

4. The Lincoln Career Education Project has resulted in the increased use of planning as a means of systematic curriculum modification. Improvement plans were developed by all the career education target schools. In most cases the plans were implemented; however, as expected, implementation of the plans varied from school to school. In several of the schools the concept of planning was extended to the departmental level. In all cases the second year plans were superior to the first year plans.

5. The Career Education activities implemented in the elementary schools have been fairly comprehensive. Of particular significance is the "valuing" approach to career education. This procedure is being used systematically with all students on a continuing basis. The program has been effective. Summary student data is presented in Appendix 5. The career education activities in both the junior and senior high school have not been comprehension. Participation is not systematic but instead is determined by a number of "chance" factors, i.e., teacher assignments, advisors, etc.

APPENDIX 3

Career Education Activities Implementation in Both 1973-74 and 1974-75

APPENDIX 3

IMPLEMENTATION SUMMARY

A List of Specific Career Education Activities by General Treatment Classification by Goal Area*

I. Increased Self-Awareness and Increased Career Decision Making Skills

A. Infusion of activities into existing curriculum directed toward assisting students to discover their own interests and abilities in terms of careers.

1. In 8th grade Basic Studies students take Industrial and Environmental Units.
2. In World of Manufacturing, students are shown abilities in manufacturing and construction.
3. In World of Construction, students are shown abilities in construction and manufacturing.
4. In 7th grade Basic Studies students are shown travels, advertising, maps and activity cards.
5. Self Esteem test was given to some students.
6. For the reading students, individual conferences, book selections were given.
7. The 6-9th grade Instrumental classes gave performances for the public.
8. The 8th grade Basic Studies class had job interview activities, interest survey--Project Discovery.
9. The 6-7th grade Basic Studies classes conferenced with each student. Personal interviews were done by students. Many forms were filled out.
10. The 6-9th grade classes talked about goals, interests, abilities and test results.
11. The 6-9th grade students were given questionnaires in T/A, and all grades were given the T/A survey.
12. The 8-9th grades had individual conferences with art students who might be considering careers in art.
13. The 9th grade English class had planning sessions with students, Decision-making.
14. Sr. High English classes had filmstrips on careers; use of careers listing for library unit; worksheets and class discussion.
15. Sr. High Math classes had involvement informally in senior classes.
16. Sr. High Business classes had readings on careers; readings on job descriptions; readings on Labor Dept statistics; and complete units on major office duties.
17. Sr. High Social Studies classes had involvement in Economics, Psych, Business Law, Current Problems and EPIC Volunteer assignments.
18. Sr. High Home Economics classes were involved in HERO; Values Clarification activities; preview of jobs; qualifications; tests of their abilities.

*Each specific activity was implemented in one or more career education target school by at least one teacher.

19. Sr. High Trades classes were involved in Job Placement; work related jobs in class assignments; exploring litterpress and offset printing.
20. Sr. High Guidance Department went on a one-to-one basis in counseling format.

B. Infusion of activities into learning resource centers directed toward assisting students to discover their own interest and abilities in terms of careers.

C. Use of the "Valuing Approach to Career Education"

1. The valuing approach was used in the 4th grade learning centers.

D. Use of "Project Discovery Program"

1. Project Discovery to 7,8,9th grade classes.

E. Use of "Vocational Exploration Group" Program.

1. Interest test given to 9th graders.
2. Algebra aptitude test to 8th graders.
3. Career Education coordinator administered "Vocational Exploration Group" Program to small groups upon request.
4. Several sessions conducted by guidance department.
5. Used by counselors.

F. A program of interest and aptitude testing with a mechanism of feedback and guidance to students based on results.

1. Advisors brought students to Career Information Center.
2. Advisors and counselors interpreted ITED test results to students.
3. Use of COPs extensive.
4. COPs for Value Clarification class only.
5. Kuder Preference for Values Clarification class.
6. GATB available for use.

G. Student assessment center

1. Tutoring and testing available in Career Information Center.

H. Infusion of valuing activities in Teacher Advisor Program

I. Interest and aptitude testing program with guidance/advisor assistance based on results.

1. Advisors and counselors interpreted results of ITED tests to students.
2. Use of Kuder Preference and COPs with Value Clarification class.

J. Infusion of activities into existing curriculum directed toward assisting students to discover what values effect career choice and to discover their own values.

1. Clarification of Values is a 2nd semester theme of 8th grade Basic Studies.
2. Students arranged a visit to a court trial.
3. The 8th grade Basic Studies class had a unit on Warm and Fuzzy "To Kill a Mockingbird"--prejudice and empathy unit.
4. The 6-7th grade Basic Studies students had units which all included values clarification and dealt with their relation to work and careers.
5. The 6-9th grade classes discussed in conference strengths and weaknesses and how they affected careers. How career would affect life style.
6. The 6-9th grade classes also did the values clarification exercise.
7. The T/A grades took the interest survey, had conferences and discussions.
8. This was done in Social Studies and English in Sr. High classes.
9. English classes had filmstrips on Careers--discussion of living expenses vs incomes helpful; Nebraska Curriculum Stress values and value systems.
10. Business classes had class discussions; guest speakers; self evaluation exercises.
11. Home Economics classes had HERO, Values Clarification activities; tapes and filmstrips.
12. Trades classes had Post-High Education; by relating what employers want.
13. The Guidance Department held Values Clarification class and involved VEG.

II. Students will demonstrate increased competency in basic academic/ vocational skills.

A. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.

1. Environmental Units, Industrial Units and specific book assignments were used in 8th grade Basic Studies.
2. Activity cards used in the 7th grade Basic Studies class.
3. The 8-9th grade Business students took a field trip to a bank.
4. The T/A students had individual conferences discussing questionnaires.
5. The 8th grade Basic Studies students did term papers on careers--their writing assignments in English.
6. The 6-7th grade Basic Studies students infused careers in all aspects of Basic Studies curriculum.
7. The T/A students evaluated tests, and discussed them.
8. In reading, the students did reading and researching careers (Voluntary).
9. In Art classes the instruction is geared to showing the students how certain techniques and skills can apply towards an art career or other interests.

10. The 6-9th grade students had reading orientation.
11. In 9th grade English, the students--both in class and outside writing (personal) compared to professional authors, procedures at same, films, etc.

III. Students will demonstrate increased awareness of work values and possess a desire to engage in paid and/or unpaid work.

A. Infusion of activities into existing curriculum directed toward developing in students a positive attitude toward work and working.

1. Through the valuing approach this was applied in 1st and 5th grades.

B. Infusion of activities into learning resource centers directed toward developing in students a positive attitude toward work and working.

1. Applied in 4th and 1st grades.
2. 6-9th grade reading students were rewarded with "funny money" when they did their work. Received nothing if they did not do their work.
3. The 6-9th grade students played the Value, Clarification games.
4. The 6-9th grade reading students had funny money in payment for work which was spent on fun activities.
5. The 8th grade Basic Studies had point system and rewards for good work, prompt completion of assignments, helping others.
6. The 8th grade Basic Studies also had Johnny Tremain, discussion worksheets.
7. The 6-7th grade Basic Studies students infused in all aspects of curriculum--log book for example.
8. The 6-8th grade students had record and time sheets similar to work record. Record keeping was used also. Rewards and recognition were given.
9. In the Art classes, students used a positive approach--i.e., taking pride in personal accomplishments.
10. Held a Values Clarification Class.

C. Use of the "Valuing Approach to Career Education".

D. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.

1. English students were told about department stress; forms such as job applications, interviews through role play, writing business letters.
2. Math students were told about basic emphasis.
3. Business students held discussions; had speakers from business who stress entry-level skills; accepted only entry level class work for grading; taught classes like an office--room arranged in clusters to conform to business office.
4. Social Studies students indicated they emphasized development of basic skills.

5. Science students have a need for basics in any job emphasis; stress need for responsibility in relations to others.
6. Home Economics students stressed covering in sanitation and food handling through practice; use Public Health speakers who stressed importance of sanitation practices; interviewed food workers to determine reasons for employment; had tapes and filmstrips.
7. In Trades, students stressed job entry level skills; in welding students discover what they must know to be employed; and learned basic skills in lithography, plate making, stripping, opaquing, photography.

IV. Students will demonstrate increased awareness of and knowledge about work.

A. Infusion of activities into existing curriculum directed toward providing students an awareness of careers.

1. Fifth grade Social Studies and 1st grade Math.
2. Introduction of film on Careers in Health to 8th grade Health class.
3. "Free" reading book directly or indirectly depicted various careers to 6-9th grade reading class.
4. Field trip to Wards for World of Business Class.
5. Posters and class films to 9th grade English class.
6. Assembly line simulation; writing as a career to 8th grade Basic Studies class.
7. 6-7th grade Basic Studies visited Police Department; had the Dean of NU Engineering speak to class; a lawyer visited classes; and 2-handicapped visitors spoke on their careers.
8. Activities for the 6-9th grade Math classes was based on Career Education and included in assignments. They were matched with areas of interest and ability.
9. Some students in art classes periodically ask for information on art careers. One former student even returned for help a couple of times.

B. Use of Career Education field trips directed towards providing students an awareness of various careers.

1. All 5th grade Social Studies students went on field trips.
2. Occurred in the following classes: 8th & 9th grade Foods, 8th grade Basic Studies, 7th, 8th, 9th grade Human Studies, 9th grade World Studies, 7th, 8th, 9th grade Chorus, 9th grade Community Involvement, 8th & 9th grade Journalism, 7th grade Basic Studies, 9th grade Clothing, 7th, 8th grade Babysitting, 9th grade World Studies and 9th grade English and Journalism.
3. 6-9th grade reading classes went on field trips.
4. Interviewed a lawyer by 9th graders.
5. The 9th grade English class suggested and recommended that students visit community and high school and college theatre productions.
6. The 8th grade Basic Studies students shadowed government workers, answered questions, toured the police station.

7. The 6-7th grade Basic Studies students visited the police station, planetarium, county offices and historical society.
8. The Health classes took a field trip to Lincoln General Hospital, Norden Lab and the Health Fair.
9. One class had 23 field trips.
10. The English class had a Career Day and took a trip to a Mortuary.
11. The Math class took a trip to PSAB Computer Center.
12. The Business class had a Youth in Business Day; participated in exchange with Jr. High feeder schools; toured Insurance companies; banks; data processing center.
13. In Social Studies class the students toured a mortuary; EPIC Program-Social Service agencies.
14. In Science class the students toured the Medical Fair.
15. In Home Economics class the students toured Restaurants; Montessori School; Ruth Staples Lab; Interior Decoration Firms; Food Service Businesses; Furniture Store; and Fabric Stores.
16. In Trades classes the students toured TV and Radio stations; Square D; and visited 8 different types of graphic arts plants.

C. Use of Career Education resource speakers directed toward providing students an awareness of various careers.

1. The 5th and 1st graders involved police resource officer and bank representative.
2. Interviews with various people in 9th grade World Studies; 9th grade English; Journalism.
3. Shadowing in 9th grade World Studies and 9th grade Community Involvement.
4. Resource speakers in 7th, 8th, 9th grade Chorus; 7th, 8th grade Basic Studies; 9th grade Foods; 8th, 9th grade Clothing; 7th, 8th grade Babysitting; 8th, 9th grade Journalism.
5. Field trips in 8th, 9th grade Foods; 9th grade Clothing; 7th, 8th grade Babysitting; 7th, 8th grade Basic Studies; 7th, 8th and 9th grade Human Studies; 9th grade World Studies; 7th, 8th, 9th grade Chorus; 9th grade Community Involvement; 8th, 9th grade Journalism.
6. The 6th-9th grade students had a manager from Valentinos Pizza come and discuss the operation and jobs at the new 70th street location.
7. The Business classes had a resource speaker, salesman for KFOR.
8. The 9th grade English class had speakers from the Community come in--drama.
9. The 6-9th grades had KFOR Disc Jockey come to speak.
10. The 8th grade Basic Studies class had a poet, football player come to visit.
11. The 6-7th grade Basic Studies had the Dean of the College of UNL Engineering, the Mayor, a city council member, an astronomer, and 2-wheel chair persons speak to them on careers.
12. The 8th grade Health class had speakers on Nutrition, Alcohol, VD, and a police woman come in..
13. All Art students invited professional artists to demonstrate before the class. Also a potter, painter and a photographer came to class.

14. A Home Economics career day was held with 10 speakers from various fields within Home Economics.
15. One class had 32 speakers.
16. Sr. High English class the students had Sophomore English students assembly to hear speakers on careers using English foundations. They also had visits by EPIC teachers and students 10th grade classes to talk about Social Service work. They had radio disc jockey's, mortician, worker with mentally retarded and anthropologist speak to them also.
17. In Math classes at Sr. Highs, the students had an assembly for students with speakers from careers which were Math based (IBM, Vet, Architect, physicist, math teacher) and a bank employee.
18. In Business classes at Sr. Highs, students had Speakers from Successful Women in Business, former students talk about their work; State Farm employees on job interviews; Retail Credit on requirements for work; Metropolitan on responsibilities and promotions.
19. In Social Studies classes at Sr. Highs, they had speakers on content subjects with spin-off on own careers; psychology, Business Law and EPIC Seminars--Social Service work.
20. In Home Economics classes at Sr. Highs they heard speakers and representatives from HERO, Foods classes, Chefs from local businesses, President of Restaurant Association; Day Care workers; Community College; Interior Decoration workers; Department of Labor; Personnel directors; and store managers.
21. In Guidance departments at Sr. Highs, students heard from speakers from Job service; Military units; State Department of Labor.

D. Infusion of activities into learning resource centers directed toward providing students an awareness of various careers.

1. Occurred in primary 3rd and 4th grades.
2. In English class, the students were given an examination of careers using Library materials in Library Skills Unit; Unit on choosing a career; Examination of careers through literature; Unit on linquistics discusses career possibilities; Workshop developed for English teachers; Worksheets; Discussions; Objectives on job interests, applications.
3. In Math the students had an assembly with speakers from various businesses (done on departmental level).
4. In Business classes the students had career films; youth in business day; entire course career orientated (clerical intern - business courses).
5. In Social Studies classes the students had a U.S. History Unit on Business and Labor; Individual projects; Psychology course; Business Law course; Field trips; Speakers; Shadowing; Experimental work; 3-week unit on goals and values in choosing careers.
6. In Driver's Education class the students had worksheets to do.
7. In Home Economics the students had speakers; field trips; films; work experiences.
8. In Trades classes the students had field trips; speakers; job awareness in electronics; survey of jobs and job training needs in Lincoln; asked employers to list the class needs of students wanting to enter that career.

E. Use of "Career Day" directed toward providing an awareness of various careers.

1. Students worked with Rotary, the Career Education coordinator, and planned career day. Some 50 booths were set up in the school gym. The entire student body participated.

F. Infusion of activities into existing curriculum directed toward assisting students to discover what values effect career choice and to discover their own values.

1. Clarification of Values is a 2nd semester theme of 8th grade Basic Studies.
2. Students arranged a visit to a court trial.
3. The 8th grade Basic Studies class had a unit on Warm and Fuzzy, "To Kill a Mockingbird"--prejudice and empathy unit.
4. The 6-7th grade Basic Studies students had units which all included values clarification and dealt with their relation to work and careers.
5. The 6-9th grade classes discussed in conferences strengths and weaknesses and how they affected careers. How career would affect life style.
6. The 6-9th grade classes also did the values clarification exercises.
7. All T/A classes took the interest survey, had conferences and discussions.

G. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.

1. Environmental Units, Industrial Units and specific book assignments used in 8th grade Basic Studies class.
2. Activity cards used in 7th grade Basic Studies class.
3. The 8-9th grade Business students took a field trip to a local bank.
4. The T/A students had individual conferences discussing questionnaires.
5. The 8th grade Basic Studies students did term papers on careers--their writing assignments in English.
6. The 6-7th grade Basic Studies students infused careers in all aspects of Basic Studies curriculum.
7. The T/A students evaluated tests, and discussed them.
8. In reading, the students did reading and researching careers (voluntary).
9. In Art classes the instruction is geared to showing the students how certain techniques and skills can apply towards an art career or other interests.
10. The 6-9th grade students had reading orientation.
11. The 9th grade English students--both in class and outside writing (personal) compared to professional authors, procedures at same, films, etc.

H. Use of a specific program of preparation and follow up directed towards providing students community based experience of indepth study of selected careers.

1. Basic Studies class.
2. World of Manufacturing Class.
3. World of Construction Class.
4. Basic Skills 7th grade class used activity cards.
5. Community Involvement.
6. World Studies 9th grade class.
7. Each student in the World of Business class was encouraged to make a career study plus a shadowing experience.
8. The 8th grade Basic Studies students used a government booklet.
9. Through interviews and shadowing appointments with store buyers, electricians, legal assistants, candy factory workers, game warden, lawyer and veterinarian done by Career Education coordinator.

I. Infusion of activities into existing curriculum directed toward providing hands on experience in job tasks of selected careers.

J. Infusion of career information into "Individualized Industrial Arts" Program.

K. Use of the "World of Construction" Program.

1. In construction classes.

L. Use of the "World of Manufacturing" Program.

1. In manufacturing classes.

M. Use of the "Project Discovery" Program.

1. In 7th, 8th, and 9th grades by the use of Project Discovery.

N. Career Information Centers directed toward providing students an awareness of various careers.

1. Students were brought to career information center to acquaint them with services possible.
2. Done by the main center and satelite center.
3. There is no central center; however, materials are available in library and guidance offices; staff refers students to available materials in library and guidance offices.

O. Use of Career Information Centers to provide students with in-depth information about careers including such items as pay, working hours, entry level criteria, etc.

1. Advisors brought students to career information center.
2. This was done at central center and satelite center.
3. Material diffused between library and counseling offices; both guidance staff and media staff direct students to this information; available to all students.

V. Students will demonstrate increased competency in career decision-making skills.

A. Infusion of activities into existing curriculum directed toward assisting students to discover their own interests and abilities in terms of careers.

1. In 8th grade Basic Studies, Industrial and Environmental Units.
2. In World of Manufacturing shown abilities in manufacturing and construction.
3. In World of Construction shown abilities in manufacturing and construction.
4. In 7th grade Basic Studies shown travel, advertising, maps and activity cards.
5. Self-esteem test was given.
6. For the reading students, individual conferences, book selections were given.
7. 6-9th grade Instrumental classes gave performances for the public.
8. The 8th grade Basic Studies class had job interview activities, interest survey--Project Discovery.
9. The 6-7th grade Basic Studies classes conferences with each student. Personal interviews done by students. Many forms had to be filled out.
10. The 6-9th grade classes talked about goals, interests, abilities, tests results.
11. The 6-9th grade students were given questionnaires in T/A.
12. All grades were given the T/A survey.
13. The 8-9th grades had individual conferences with art students who might be considering careers in art.
14. The 9th grade English class had planning sessions with students; Decision-making.
15. English classes had filmstrips on careers; use of careers listing for library unit; worksheets and class discussion.
16. Math classes had involvement informally in senior classes.
17. Business classes had readings on careers; readings on job descriptions; readings on Labor Dept. statistics; and complete units on major office duties.
18. Social Studies classes had involvement in Economics, Psych, Business Law, Current Problems and EPIC Volunteer assignments.
19. In Home Economics classes the students were involved by HERO; Values Clarification activities; preview of jobs; qualifications, tests of their abilities.
20. In Trades classes the students were involved by Job Placement; work related jobs in class assignments; exploring litterpress and offset printing.
21. The Guidance Department went on a one-to-one basis in counseling format.

B. Infusion of activities into learning resource centers directed toward assisting students to discover their own interest and abilities in terms of careers.

1. Use the valuing approach in 4th grade learning centers.

C. Infusion of activities into existing curriculum directed toward assisting students to understand the relationship between skills taught in school and their application in various careers.

1. VEG was used in the 7th and 9th grades.
2. In the World of Business--8th and 9th grades the students were encouraged to make a career study plus a shadowing experience.
3. The T/A students held flea market decisions, group decision-making on activities.
4. The 8th grade Basic Studies students planned assembly line; persuasion techniques, ads to sell specific audiences, propaganda unit.
5. The 6-7th grade Basic Studies infused all aspects of careers into curriculum.
6. In 6-8th grade math, the students had independent math--at several points child makes decision if more study or continue; also alternate assignments and activities are given.
7. All art instruction includes the need for this in all students. They must have opinions and make choices.
8. All work in the 6-9th grade is independent. Students plan their day's work. Can choose from among many activities.
9. Group planning is done at the 9th grade English T/A level.
10. English class students had Pride in Language books for reluctant readers are helpful; stress value of correct punctuation as applicable to lawyer in court, to secretary, etc; worksheet exercises; "In all areas do this".
11. Business class students had class reports, discussions; daily paper work, workbooks, practice sets, office packets, etc; life skills applications--teach typing as a vocational course.
12. Social Studies students had "An objective in my courses".
13. Science students had need for math, reading for success in any job; and need for being dependable.
14. Home Economics students were told of foods and nutrition classes explore employment areas on trips; preparation of food items to simulate cafe experiences; use of tapes and filmstrips.
15. Trade classes students were shown the work at school compared to job activity; efforts to get post high school credits for high school programs; by letting students work on the others cars; shop projects related to industry jobs.

D. Infusion of activities into existing curriculum directed toward developing in students basic career decision-making skills.

1. Guidance Dept--used card file, VEG, and folders on 10th and 11th grade students on tentative plans for work.
2. English class--an example was a mock trial being instrumental in getting a girl interested in law career.
3. In Business class--the use of follow-up activities; excellent set of vocational and professional type filmstrips; literature in room 150; key punch links receipts; instruction is career based.
4. Social Science class used Business Law and Economics.
5. The Driver's Ed class used reading material alterting students to career choices; request of entry.

6. Trades class shared information on 20 different careers by the people who hire in each career; uses of chemicals and inks in printing; and shared on the job experiences in labs.
7. Various things were offered in Health related courses.
8. General decision making skills were offered in Home Economics.

E. Use of "Vocational Exploration Group" Program.

1. Interest test given to 9th graders.
2. Algebra aptitude test given to 8th graders.
3. Career Education coordinator administered "Vocational Exploration Group" Program to small groups upon request.
4. Several sessions conducted by Guidance Department.
5. Used by counselors.

F. Student assessment center.

1. Tutoring and testing available in Career Information Center.

G. Infusion of activities into existing curriculum directed toward assisting students to discover what values affect career choice and to discover their own values.

1. This was done in Social Studies and English Sr. high classes.
2. English classes had filmstrips on Careers--discussion of living expenses vs incomes helpful; Nebraska Curriculum Stress value and value systems.
3. Business classes had class discussions; guest speakers; self evaluation exercises.
4. Home Economics classes had HERO, Values Clarification activities; tapes and filmstrips.
5. Trades classes had Post-High education; by relating what employers want.
6. The Guidance Department held Values Clarification Class and involved VEC.

H. Infusion of valuing activities in Teacher Advisor Program.

I. Program for post high school planning for use with graduating seniors and early exiting students.

VI. Students will demonstrate good work habits.

VII. Students will demonstrate work-seeking and work-getting skills.

A. Provide students assistance in course selection based on their interests and abilities.

B. Use of "Vocational Exploration Group" Program.

1. Career Education coordinator administered "Vocational Exploration Group" Program to small groups upon request.
2. Several sessions conducted by Guidance Department.

3. Used by counselors.
4. Interest test given to 9th graders.
5. Algebra aptitude test given to 8th graders.

C. Co-op education programs.

1. In Business classes Coop Office Occupations are offered.
2. In Home Economics class, Foods career class and child care careers are offered.
3. In Trades and Industrial Arts, unstructured placement work is offered.
4. In Health Relations course--health intern program is offered.

D. Paid and non-paid community placement.

1. Career Education coordinator placed business students in LEX program in National Guard, Volunteer services and child care classes.
2. Part and full time jobs were found.
3. Placement in EPIC.
4. One English teacher had secured jobs for 5 of her students.
5. In Business class the intern program proved that one teacher routinely places students in paid jobs because of her business contacts.
6. One teacher in Art has placed 8 students in professional jobs in photography.
7. Home Economics students are placed through foods careers and exploring childhood programs; upholstery work, retail sales in fabrics, cleaning establishment.
8. Trades students are placed in machines jobs and some are placed in jobs related to course work (welding, auto-mechanic, etc).
9. One student from the Health related course was placed as part of careers course.

E. Guidance/advisor assistance in course selection based on career interest aptitude and goals.

1. Advisors work with students during registration.
2. On-going as part of regular counseling routines.

F. Individual Instructional Packets geared to student interest and aptitudes.

G. Individual Instructional Packets geared to entry level criteria of various occupations, education or training programs.

VIII. Students who are leaving the formal education system will be successful in being placed in a paid occupation, in further eudcation, or in unpaid work that is consistent with their current career education.

A. Exiting Placement Program

1. This was done by counselors with assistance from Career Education coordinator--seniors interested in jobs are invited to come and look at the list ocmpiled by Career Education coordinators from job services.

2. Counselors sent to placement office a list of graduating seniors needing jobs.

IX. Students will be aware of means available for continued education once they have left the formal educational system.

A. Exiting Placement Program.

1. This was done by counselors with assistance from Career Education coordinator--seniors interested in jobs are invited to come and look at the list compiled by Career Education coordinators from job services.
2. Counselors send to placement office, a list of graduating seniors needing jobs.

B. Program for post high school planning for use with graduating seniors and early exiting students.

APPENDIX 4

Treatment Group Outcome Area Table

APPENDIX 4

TREATMENT GROUP OUTCOME AREA TABLE

ELEMENTARY FAMILIARIZATION

INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

IV. A. Students have increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work.
B. Students have increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work.
C. Students have increased their knowledge of entry requirements for major types of paid and unpaid work.
D. Students have increased their knowledge of the impact of social and technological change in paid and unpaid work.
E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	Brownell	Blessed Sacrament
1. Infusion of activities into existing curriculum directed toward providing students an awareness of careers.	X	
2. Use of Career Education field trips directed towards providing students an awareness of various careers.	X	X
3. Use of Career Education resource speakers directed toward providing students an awareness of various careers.	X	X
4. Infusion of activities into learning resource centers directed toward providing students an awareness of various careers.	X	

INCREASED SELF-AWARENESS AND INCREASED CAREER DECISION-MAKING SKILLS

I. A. Students have increased their ability to describe their own current abilities and limitations.
B. Students have increased their ability to describe their own current interest and values.

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.
B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.

Treatments:	Brownell	Blessed Sacrament
1. Infusion of activities into existing curriculum directed toward assisting students to discover their own interests and abilities in terms of careers.	X	
2. Infusion of activities into learning resource centers directed toward assisting students to discover their own interest and abilities in terms of careers.	X	

ELEMENTARY ORIENTATION

INCREASED DESIRE TO ENGAGE IN PAID AND/OR UNPAID WORK

III. B. Students possess more positive attitudes toward paid and unpaid work.

Treatments:	Brownell	Blessed Sacrament
1. Infusion of activities into existing curriculum directed toward developing in students a positive attitude toward work and working.	X	
2. Infusion of activities into learning resource centers directed toward developing in students a positive attitude toward work and working.	X	

INCREASED SELF-AWARENESS AND INCREASED AWARENESS OF WORK VALUES

I. B. Students have increased their ability to describe their own current interest and values.

III. A. Students have increased their recognition of the bases of various work values.

Treatments:	Brownell	Blessed Sacrament
1. Use of the "Valuing Approach to Career Education"		X

JUNIOR HIGH FAMILIARIZATION

INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

IV. A. Students have increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work.

B. Students have increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work.

C. Students increased their knowledge of entry requirements for major types of paid and unpaid work.

D. Students have increased their knowledge of the impact of social and technological change in paid and unpaid work.

E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Infusions of activities into existing curriculum directed toward providing students an awareness of various careers.	X	X		
2. Use of Career Education field trips directed toward providing students an awareness of various careers.	X	X	X	X
3. Use of Career Education resource speakers directed toward providing students an awareness of various careers.	X	X	X	X
4. Use of "Career Day" directed toward providing an awareness of various careers.			X	

INCREASED SELF-AWARENESS AND INCREASED CAREER DECISION-MAKING SKILLS

I. A. Students have increased their ability to describe their own current abilities and limitations.

B. Students have increased their ability to describe their own current interest and values.

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.

B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Infusion of activities into existing curriculum directed toward assisting students to discover their own interests and abilities in terms of careers.		X	X	

JUNIOR HIGH ORIENTATION

INCREASED SELF-AWARENESS AND INCREASED AWARENESS OF WORK VALUES

I. B. Students have increased their ability to describe their own current interest and values.

III. A. Students have increased their recognition of the bases of various work values.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Use of the "Valuing Approach to Career Education"				X

INCREASED DESIRE TO ENGAGE IN PAID AND/OR UNPAID WORK

III. B. Students possess more positive attitudes toward paid and unpaid work.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Infusion of activities into existing curriculum directed towards developing in students a more positive attitude toward work and working.		X		

INCREASED SELF-AWARENESS AND INCREASED CAREER DECISION-MAKING SKILLS

I. B. Students have increased their ability to describe their own current interest and values.

IV. B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Infusion of activities into existing curriculum directed toward assisting students to discover what values effect career choice and to discover their own values.		X	X	

INCREASED BASIC ACADEMIC/VOCATIONAL SKILLS AND INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

II. A. Students have increased their level of generally useful numerical skills.
B. Students have increased their level of generally useful communication skills.

IV. E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.	X	X	X	

INCREASED CAREER DECISION-MAKING SKILLS

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Infusion of activities into existing curriculum directed toward assisting students to understand the relationship between skills taught in school and their application in various careers.	X	X	X	

INCREASED CAREER DECISION-MAKING SKILLS

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.
B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.
C. Students have increased their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision-making problems.
D. Students have increased their ability to determine the potential for future advancement/personal growth in work of their choosing.
E. Students have increased their knowledge of the steps to be taken and the factors to be considered in career planning.
F. Students have increased their active involvement in career decision-making.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Infusions of activities into existing curriculum directed toward developing in students basic career decision-making skills.		X		

INCREASED WORK SEEKING AND WORK GETTING SKILLS

VII. B. Students have increased their level of skills required in (a) applying for, and (b) accepting work.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Provide students assistance in course selection based on their interests and abilities.		X		

JUNIOR HIGH EXPLORATION

INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

IV. A. Students have increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work.
B. Students have increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work.
C. Students have increased their knowledge of entry requirements for major types of paid and unpaid work.
D. Students have increased their knowledge of the impact of social and technological change in paid and unpaid work.
E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Use of a specific program of preparation and follow-up directed towards providing students community based experience of indepth study of selected careers.		X	X	
2. Infusion of activities into existing curriculum directed toward providing hands on experience in job tasks of selected careers	X		X	
3. Infusion of career information into "Individualized Industrial Arts Program"		X		
4. Use of the "World of Construction Program"	X	X	X	
5. Use of the "World of Manufacturing Program"		X	X	

INCREASED SELF-AWARENESS AND INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

I. A. Students have increased their ability to describe their own current abilities and limitations.

B. Students have increased their ability to describe their own current interest and values.

IV. A. Students have increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work.

B. Students have increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work.

C. Students have increased their knowledge of entry requirements for major types of paid and unpaid work.

D. Students have increased their knowledge of the impact of social and technological change in paid and unpaid work.

E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Use of the Project Discovery Program.		X		

INCREASED SELF-AWARENESS, INCREASED CAREER DECISION-MAKING SKILLS AND INCREASED WORK SEEKING AND WORK GETTING SKILLS

I. A. Students have increased their ability to describe their own current abilities and limitations.

B. Students have increased their ability to describe their own current interest and values.

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.

B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.

C. Students have increased their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision-making problems.

D. Students have increased their ability to determine the potential for future advancement/personal growth in work of their choosing.

E. Students have increased their knowledge of the steps to be taken and the factors to be considered in career planning.

VII. A. Students have increased their ability to (a) identify, (b) locate, and (c) utilize sources that contain information about paid and unpaid work.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. Use of "Vocational Exploration Group" Program.	X		X	

INCREASED SELF-AWARENESS

I. A. Students have increased their ability to describe their own current abilities and limitations.
B. Students have increased their ability to describe their own current interest and values.

Treatments:	East	Goodrich	Mickle	Blessed Sacrament
1. A program of interest and aptitude testing with a mechanism of feed-back and guidance to students based on results.	X	X	X	X

SENIOR HIGH FAMILIARIZATION

INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

IV. A. Students have increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work.
B. Students have increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work.
C. Students have increased their knowledge of entry requirements for major types of paid and unpaid work.
D. Students have increased their knowledge of the impact of social and technological change in paid and unpaid work.
E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	East	Northeast	Lincoln High	Pius
1. Infusion of activities into existing curriculum directed toward providing students an awareness of various careers.	X	X	X	
2. Use of Career Day directed toward providing students an awareness of various careers.		X	X	
3. Career Information Centers directed toward providing students an awareness of various careers.	X	X	X	X
4. Use of Career Education field trips directed toward providing students an awareness of various careers.	X	X	X	X
5. Use of Career Education Resource speakers directed toward providing students an awareness of various careers.	X	X	X	X

INCREASED SELF-AWARENESS AND INCREASED CAREER DECISION-MAKING SKILLS

I. A. Students have increased their ability to describe their own current abilities and limitations.
B. Students have increased their ability to describe their own current interest and values.

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.
B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.

Treatments:	East	Northeast	Lincoln High	Pius
1. Infusion of activities into existing curriculum directed toward assisting students to discover their own interests and abilities in terms of careers.	X			
2. Student assessment center			X	

SENIOR HIGH ORIENTATION

INCREASED SELF-AWARENESS AND INCREASED CAREER DECISION-MAKING SKILLS

I. B. Students have increased their ability to describe their own current interest and values.

V. B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.

Treatments:	East	Northeast	Lincoln High	Pius
1. Infusion of activities into existing curriculum directed toward assisting students to discover what values affect career choice and to discover their own values.	X	X	X	X
2. Infusion of valuing activities in Teacher Advisor Program				X

INCREASED CAREER DECISION-MAKING SKILLS

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Infusion of activities into existing curriculum directed toward assisting students to understand the relationship between skills taught in school and their application in various careers.	X	X	X	

INCREASED AWARENESS OF WORK VALUES, INCREASED DESIRE TO ENGAGE IN PAID AND/OR UNPAID WORK AND INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

III. A. Students have increased their recognition of the bases of various work values.
B. Students possess more positive attitudes toward paid and unpaid work.

IV. E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	East	Northeast	Lincoln High	Pius
1. Infusion of activities into existing curriculum directed toward assisting students to understand the importance of basic skills to career entry and success.	X	X	X	X

INCREASED CAREER DECISION-MAKING SKILLS

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.
B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.
C. Students have increased their ability to (a) identify; (b) locate, and (c) utilize sources of information to solve career decision-making problems.
D. Students have increased their ability to determine the potential for future advancement/personal growth in work of their choosing.
E. Students have increased their knowledge of the steps to be taken and the factors to be considered in career planning.
F. Students have increased their active involvement in career decision-making.

Treatments:	East	Northeast	Lincoln High	Pius
1. Infusion of activities into existing curriculum directed toward developing in students basic career decision-making skills.	X		X	

INCREASED DESIRE TO ENGAGE IN PAID AND/OR UNPAID WORK

III. B. Students possess more positive attitudes toward paid and unpaid work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Infusion of activities into existing curriculum directed towards developing in students a positive attitude toward work and working.		X		
2. Infusion of activities into group guidance classes directed toward developing in students a positive attitude toward work and working.			X	

SENIOR HIGH EXPLORATION

INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK

IV. A. Students have increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work.
B. Students have increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work.
C. Students have increased their knowledge of entry requirements for major types of paid and unpaid work.
D. Students have increased their knowledge of the impact of social and technological change in paid and unpaid work.
E. Students have increased their knowledge of the important factors that affect work success and satisfaction.

Treatments:	East	Northeast	Lincoln High	Pius
1. Use of a specific program of preparation and follow-up directed towards providing students community based experience of in-depth study of selected careers.				X
2. Use of Career Information Centers to provide students with in-depth information about careers including such items as pay, working hours, entry level criteria, etc.	X	X	X	X

INCREASED SELF-AWARENESS

I. A. Students have increased their ability to describe their own current abilities and limitations.
B. Students have increased their ability to describe their own current interest and values.

Treatments:	East	Northeast	Lincoln High	Pius
1. A program of interest and aptitude testing with a mechanism of feed-back and guidance to students based on results.	X	X	X	X

INCREASED WORK SEEKING AND WORK GETTING SKILLS

VII. B. Students have increased their level of skills required in (a) applying for, and (b) accepting work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Individual Instructional Packets geared to student interest and aptitudes.		X		
2. Individual Instructional Packets geared to entry level criteria of various occupations, education or training programs		X		

INCREASED SELF-AWARENESS, INCREASED CAREER DECISION-MAKING SKILLS AND INCREASED WORK SEEKING AND WORK GETTING SKILLS

I. A. Students have increased their ability to describe their own current abilities and limitations.
B. Students have increased their ability to describe their own current interest and values.

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.
B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.
C. Students have increased their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision-making problems.
D. Students have increased their ability to determine the potential for future advancement/personal growth in work of their choosing.
E. Students have increased their knowledge of the steps to be taken and the factors to be considered in career planning.

VII. A. Students have increased their ability to (a) identify, (b) locate, and (c) utilize sources that contain information about paid and unpaid work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Use of "Vocational Exploration Group" Program	X	X	X	X

SENIOR HIGH PREPARATION

INCREASED WORK SEEKING AND WORK GETTING SKILLS

VII. B. Students have increased their level of skills required in (a) applying for, and (b) accepting work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Co-op education programs	X		X	
2. Paid and non-paid community placements	X	X	X	X

SENIOR HIGH EXITING PLACEMENT

PLACEMENT AND INCREASED AWARENESS OF MEANS FOR CONTINUED EDUCATION

VIII. A. Students have been place or are engaged in further education.
B. Students have been placed in a paid occupation.
C. Of those placed in (a) further education, and (b) employment, students consider the placement to be consistent with their career plans.
D. Of those not placed in further education or in a paid occupation, students are engaged in (a) unpaid work consistent with their career plans.

IX. A. Students have increased their ability to identify sources of additional education in major types of paid and unpaid work.
B. Students have increased their ability to identify means to support additional education for themselves in major types of paid and unpaid work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Exiting Placement Program	X	X	X	X

CAREER PLANNING

INCREASED WORK SEEKING AND WORK GETTING SKILLS

VII. B. Students have increased their level of skills required in (a) applying for, and (b) accepting work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Guidance/advisor assistance in course selection based on career interest aptitude and goals	X	X	X	X

INCREASED SELF-AWARENESS

I. A. Students have increased their ability to describe their own current abilities and limitations.
B. Students have increased their ability to describe their own current interest and values.

Treatments:	East	Northeast	Lincoln High	Pius
1. Interest and aptitude testing program with guidance/advisor assistance based on results.	X	X	X	X

INCREASED CAREER DECISION-MAKING SKILLS AND INCREASED AWARENESS OF MEANS FOR CONTINUED EDUCATION

V. A. Students have increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work.
B. Students have increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles.
C. Students have increased their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision-making problems.
D. Students have increased their ability to determine the potential for future advancement/personal growth in work of their choosing.
E. Students have increased their knowledge of the steps to be taken and the factors to be considered in career planning.
F. Students have increased their active involvement in career decision-making.

IX. A. Students have increased their ability to identify sources of additional education in major types of paid and unpaid work.
B. Students have increased their ability to identify means to support additional education for themselves in major types of paid and unpaid work.

Treatments:	East	Northeast	Lincoln High	Pius
1. Program for post high school planning for use with graduating seniors and early exiting students.			X	

APPENDIX 5

REVISED OUTCOME QUESTION/TREATMENT GROUP MATRIX

REVISED
OUTCOME QUESTION/TREATMENT GROUP MATRIX

OUTCOME QUESTIONS	BROWNELL	BLESSED SACRAMENT		EAST	GOODRICH	MICKLE	BLESSED SACRAMENT		EAST	NORTHEAST	LINCOLN HIGH	PLUS
INCREASED SELF-AWARENESS												
A. Have students increased their ability to describe their own current abilities and limitations?	X			X	X	X	X		X	X	X	X
B. Have students increased their ability to describe their own current interest and values?	X	X		X	X	X	X		X	X	X	X
C. Do students display more positive attitudes toward themselves?												
D. Have students increased their recognition that social, economic, educational, and cultural forces influence their development?												
INCREASED BASIC ACADEMIC/VOCATIONAL SKILLS												
A. Have students increased their level of generally useful numerical skills?				X	X	X						
B. Have students increased their level of generally useful communication skills?				X	X	X						
C. Have students increased their level of generally useful information processing skills?												
D. Have students increased their level of generally useful decision-making skills?												
E. Have students increased their level of generally useful interpersonal skills?												
INCREASED AWARENESS OF WORK VALUES												
A. Have students increased their recognition of the bases of various work values?		X					X		X	X	X	
INCREASED DESIRE TO ENGAGE IN PAID AND/OR UNPAID WORK												
B. Do students possess more positive attitudes toward paid and unpaid work?	X				X				X	X	X	
INCREASED AWARENESS OF AND KNOWLEDGE ABOUT WORK												
A. Have students increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work?	X	X		X	X	X	X		X	X	X	X

	BROWNELL	BLESSED SACRAMENT		EAST	GOODRICH	MICKLE	BLESSED SACRAMENT		EAST	NORTHEAST	LINCOLN HIGH	PIUS
B. Have students increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work?	X	X		X	X	X	X		X	X	X	X
C. Have students increased their knowledge of entry requirements for major types of paid and unpaid work?	X	X		X	X	X	X		X	X	X	X
D. Have students increased their knowledge of the impact of social and technological change in paid and unpaid work?	X	X		X	X	X	X		X	X	X	X
E. Have students increased their knowledge of the important factors that affect work success and satisfaction?	X	X		X	X	X	X		X	X	X	X
V. INCREASED CAREER DECISION-MAKING SKILLS												
A. Have students increased their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work?	X			X	X	X			X	X	X	X
B. Have students increased their ability to relate their personal interests and values to types of paid and unpaid work and their associated life-styles?	X			X	X	X			X	X	X	X
C. Have students increased their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision-making problems?				X	X	X			X	X	X	X
D. Have students increased their ability to determine the potential for future advancement/personal growth in work of their choosing?				X	X	X			X	X	X	X
E. Have students increased their knowledge of the steps to be taken and the factors to be considered in career planning?				X	X	X			X	X	X	X
F. Have students increased their active involvement in career decision-making?					X	X			X	X	X	X
VI. IMPROVED WORK HABITS												
A. Are students able to plan work effectively?												
B. Are students more adaptable to varied work situations?												
C. Do students have a more positive attitude towards the concepts of quality in relation to a work task?												
D. Do students have a more positive attitude towards conservation of environmental and human resources in accomplishing work tasks?												

	BROWNELL	BLESSED SACRAMENT		EAST	GOODRICH	MICKLE	BLESSED SACRAMENT		EAST	NORTHEAST	LINCOLN HIGH	PIUS
E. Do students have a more positive attitude towards responsibility for their own behavior and accomplishment of self-imposed work tasks?												
F. Do students demonstrate an increased desire for continuous learning both in school and out?												
VII. INCREASED WORK SEEKING AND WORK GETTING SKILLS												
A. Have students increased their ability to (a) identify, (b) locate, and (c) utilize sources that contain information about paid and unpaid work?				X					X	X	X	X
B. Have students increased their level of skills required in (a) applying for, and (b) accepting work?					X				X	X	X	X
VIII. PLACEMENT												
A. How many students have been placed or are engaged in further education and how does this compare with prior years?									X	X	X	X
B. How many students have been placed in a paid occupation, and how does this compare with prior years?									X	X	X	X
C. Of those placed in (a) further education, and (b) employment, how many consider the placement to be consistent with their career plans?									X	X	X	X
D. Of those not placed in further education or in a paid occupation, how many are engaged in (a) unpaid work consistent with their career plans, and how does this compare with prior years?									X	X	X	X
IX. INCREASED AWARENESS OF MEANS FOR CONTINUED EDUCATION												
A. Have students increased their ability to identify sources of additional education in major types of paid and unpaid work?									X	X	X	X
B. Have students increased their ability to identify means to support additional education for themselves in major types of paid and unpaid work?									X	X	X	X

Revised 12/75

APPENDIX 6

Evaluation Design

EVALUATION DESIGN WORKSHEET

Goal Area	Objective	Instrument	Subscale	Grade Level	Career Education Target School
III. Work Values	B	CMI, ATT		12th	E, NE, LH, P
IV. Knowledge	A	ACD CMI	1,3 1,2	9th, 12th	E,P,M,G,NE,LH
	B	ACD	1	9th, 12th	E,P,M,G,NE,LH
	C	ACD CMI	2 4	9th, 12th	E,P,M,G,NE,LH
	D	ACD	4	9th, 12th	E,P,M,G,NE,LH
	E	CMI	1	9th, 12th	E,P,M,G,NE,LH
V. Decision Making Skills	A	CMI	1,3	9th, 12th	E,G,M,P,NE,LH
	B	ACD CMI	3 1,3.	9th, 12th	G,M,P,NE,LH,E
	C	ACD	4,5	9th, 12th	G,P,E,NE,LH
	E	ACD CMI	4 1	9th, 12th	G,P,E,NE,LH
	F	ACD	5	9th, 12th	G,P,E,NE,LH
VII. Work Seeking Skills	A	ACD	5	12th	E,NE,LH,P

APPENDIX 7

Summary Data on 1975-76 Sampling Plan

TABLE 1

NUMBER OF 9th GRADE RESPONDENTS BY SUBTEST BY SCHOOL

	EJH	GJH	MJH	PIUS	EJH	LJH	PJH
Spring 1975							
CAREER MATURITY INVENTORY							
Part 1	24	16	39	19	9	30	30
Part 2	20	17	37	18	8	29	30
Part 3	20	17	39	20	9	29	32
Part 4	21	17	37	19	8	29	33
ASSESSMENT OF CAREER DEVELOPMENT*							
Form 1	20	16	34	17	8	28	30
Form 2	17	15	34	18	7	28	30
Form 3	18	17	33	18	8	27	29
Form 4	13	17	32	16	7	28	29
Total Respondents	153	132	285	145	64	228	243
Largest Number	24	17	39	20	9	30	33
Smallest Number	13	15	32	16	7	27	29
Range	11	2	7	4	2	3	4
Spring 1976							
CAREER MATURITY INVENTORY							
Part 1	21	22	33	42	15	28	27
Part 2	24	20	32	24	15	24	29
Part 3	23	20	23	33	16	29	28
Part 4	22	21	25	42	16	27	29
ASSESSMENT OF CAREER DEVELOPMENT*							
Form 1	21	21	30	45	15	27	28
Form 2	20	22	32	32	15	28	28
Form 3	22	20	32	31	12	27	25
Form 4	20	18	33	43	15	29	29
Total Respondents	173	164	240	292	119	219	223
Largest Number	24	22	33	45	16	29	29
Smallest Number	20	18	25	24	12	27	25
Range	4	4	8	21	4	2	4

*Form 1 includes Subscore 1 and 2, Form 2 includes Subscores 2 and 5, Form 3 includes Subscore 3 and 4, and Form 4 includes Subscore 6.

TABLE 2

NUMBER OF 12th GRADE RESPONDENTS BY SUBTEST BY SCHOOL

	SE	NE	LHS	EAST	PIUS
Spring 1975					
CAREER MATURITY INVENTORY					
Part 1	42	46	32	47	10
Part 2	45	45	33	43	9
Part 3	44	42	45	38	8
Part 4	40	49	30	36	9
ASSESSMENT OF CAREER DEVELOPMENT*					
Form 1	41	47	22	37	11
Form 2	42	46	27	43	10
Form 3	40	40	30	37	9
Form 4	41	40	25	48	11
Total Respondents	335	355	234	329	77
Largest Number	45	49	35	48	11
Smallest Number	40	40	22	36	8
Range	5	9	13	12	3
Spring 1976					
CAREER MATURITY INVENTORY					
Part 1	59	47	38	34	23
Part 2	50	46	33	29	24
Part 3	56	44	30	29	26
Part 4	50	48	42	28	23
ASSESSMENT OF CAREER DEVELOPMENT*					
Form 1	53	48	37	33	16
Form 2	49	47	44	31	22
Form 3	54	38	38	30	22
Form 4	48	46	33	30	15
Total Respondents	419	364	295	244	171
Largest Number	59	48	44	34	26
Smallest Number	48	38	30	28	15
Range	11	10	14	6	11

*Form 1 includes Subscore 1 and 2, Form 2 includes Subscores 2 and 5, Form 3 includes Subscore 3 and 4, and Form 4 includes Subscore 6.

APPENDIX 8

Summary Data on Student Outcomes

TABLE 1

SUMMARY DATA FOR STUDENT OUTCOME III-B

III. Students will demonstrate increased awareness of work values and posses a desire to engage in paid and/or unpaid work.

B. Students will possess positive attitudes toward paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
Career Maturity Inventory			
Attitude Scale			
Number of Students*	250	146	Not Significant
Mean Score	35.85	37.18	
Standard Deviation	5.66	3.94	
Spring 1976			
Career Maturity Inventory			
Attitude Scale			
Number of Students*	339	154	Not Significant
Mean Score	36.01	36.72	
Standard Deviation	5.12	4.69	

*Item sampling procedures were used to estimate group scores on the CMI Attitude Scale, therefore, N is misleading. The number of item responses is approximately equivalent to N/4; (250 students responding to Item Sample test is approximately equivalent to 63 students responding to the entire attitude test.

TABLE 2

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME IV-A

IV. Students will demonstrate increased awareness of and knowledge about work.

A. Students will know the major duties and required abilities of different types of paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristics			
Number of Students	87	66	
Mean Score	35.38	36.39	Not Signifi-
Standard Deviation	8.70	9.96	cant
Subscore 3 Exploratory Occupational Experience			
Number of Students	78	64	
Mean Score	1.73	1.84	p .05
Standard Deviation	0.25	0.25	
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	98	69	
Mean Score	13.31	13.20	Not Signifi-
Standard Deviation	3.42	3.83	cant
Part 2 Knowing About Jobs			
Number of Students	92	67	
Mean Score	14.97	15.22	Not Signifi-
Standard Deviation	3.33	3.62	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristics			
Number of Students	117	70	
Mean Score	33.90	33.80	
Standard Deviation	8.60	8.76	
Subscore 3 Exploratory Occu Experience			
Number of Students	114	73	
Mean Score	1.77	1.78	Not Signifi-
Standard Deviation	0.29	0.26	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	118	70	
Mean Score	12.05	12.39	Not Signifi-
Standard Deviation	4.22	4.36	cant
Part 2 Knowing About Jobs			
Number of Students	112	68	
Mean Score	14.98	14.23	Not Signifi-
Standard Deviation	3.39	4.69	cant

TABLE 2a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME IV-A

IV. Students will demonstrate increased awareness of and knowledge about work.

A. Students will know the major duties and required abilities of different types of paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristic			
Number of Students	80	41	Not
Mean Score	40.65	39.93	Signifi-
Standard Deviation	8.83	11.64	cant
Subscore 3 Exploratory Occupational Experience			
Number of Students	76	41	Not
Mean Score	1.78	1.79	Signifi-
Standard Deviation	0.27	0.29	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	88	42	Not
Mean Score	13.66	13.81	Signifi-
Standard Deviation	3.22	3.31	cant
Part 2 Knowing About Jobs			
Number of Students	87	45	Not
Mean Score	16.78	17.78	Signifi-
Standard Deviation	2.88	2.52	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristic			
Number of Students	101	53	Not
Mean Score	38.69	36.17	Signifi-
Standard Deviation	9.59	10.36	cant
Subscore 3 Exploratory Occupational Experience			
Number of Students	94	48	Not
Mean Score	1.70	1.77	Signifi-
Standard Deviation	0.28	0.26	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students		59	
Mean Score		13.43	
Standard Deviation		3.58	
Part 2 Knowing About Jobs			
Number of Students		49	
Mean Score		17.61	
Standard Deviation		1.96	

TABLE 3

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME IV-B

IV. Students will demonstrate increased awareness of and knowledge about work.

B. Students will know differences in work conditions and life styles associated with different types of paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristics			
Number of Students	87	66	Not Significant
Mean Score	35.38	36.39	
Standard Deviation	8.70	9.96	
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristics			
Number of Students	117	70	Not Significant
Mean Score	33.90	33.80	
Standard Deviation	8.62	8.76	

TABLE

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME IV-B

IV. Students will demonstrate increased awareness of and knowledge about work.

B. Students will know differences in work conditions and life styles associated with different types of paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristics			
Number of Students	80	41	Not
Mean Score	40.65	39.93	Signifi-
Standard Deviation	8.83	11.64	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 1 Occupational Characteristics			
Number of Students	101	53	Not
Mean Score	38.69	36.17	Signifi-
Standard Deviation	9.59	10.36	cant

TABLE 4

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME IV-C

IV. Students will demonstrate increased awareness of and knowledge about work.

C. Students will know entry requirements for major types of paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 2 Occupational Preparation Requirements			
Number of Students	87	66	Not
Mean Score	10.37	10.92	Signifi-
Standard Deviation	3.21	3.18	cant
CAREER MATURITY INVENTORY			
Part 4 Looking Ahead			
Number of Students	94	70	Not
Mean Score	13.21	13.84	Signifi-
Standard Deviation	3.65	3.15	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 2 Occupational Preparation Requirements			
Number of Students	117	70	Not
Mean Score	10.68	10.36	Signifi-
Standard Deviation	2.95	3.62	cant
CAREER MATURITY INVENTORY			
Part 4 Looking Ahead			
Number of Students	110	72	Not
Mean Score	13.05	13.25	Signifi-
Standard Deviation	3.78	3.04	cant

TABLE 4a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME IV-C

IV. Students will demonstrate increased awareness of and knowledge about work.

C. Students will know entry requirements for major types of paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 2 Occupational Preparation Requirement			
Number of Students	80	41	Not Significant
Mean Score	12.15	11.90	
Standard Deviation	2.90	3.32	
CAREER MATURITY INVENTORY			
Part 4 Looking Ahead			
Number of Students	88	40	Not Significant
Mean Score	13.94	13.18	
Standard Deviation	3.82	4.13	
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 2 Occupational Preparation Requirement			
Number of Students	101	53	Not Significant
Mean Score	12.00	11.09	
Standard Deviation	3.58	3.58	
CAREER MATURITY INVENTORY			
Part 4 Looking Ahead			
Number of Students		50	
Mean Score		13.70	
Standard Deviation		3.99	

TABLE 5

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME IV-D

IV. Students will demonstrate increased awareness of and knowledge about work.

D. Students will know the impact of social and technological change on paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4. Career Planning Knowledge			
Number of Students	84	65	Not
Mean Score	25.25	25.54	Signifi-
Standard Deviation	4.89	5.51	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	106	71	
Mean Score	24.34	23.69	
Standard Deviation	5.34	5.93	

TABLE 5a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME IV-D

IV. Students will demonstrate increased awareness of and knowledge about work.

D. Students will know the impact of social and technological change on paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	83	42	Not Signifi-
Mean Score	27.29	27.93	cant
Standard Deviation	5.60	4.59	
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	113	49	
Mean Score	26.47	27.14	
Standard Deviation	5.79	5.75	

TABLE 6

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME IV-E

IV. Students will demonstrate increased awareness of and knowledge about work.

E. Students will know the important factors that affect work success and satisfaction.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	98	69	Not Signifi-
Mean Score	13.31	13.20	
Standard Deviation	3.42	3.83	cant
Spring 1976			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	118	70	Not
Mean Score	12.05	12.39	Signifi-
Standard Deviation	4.22	4.36	cant

TABLE 6a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME IV-E

IV. Students will demonstrate increased awareness of and knowledge about work.

E. Students will know the important facotrs that affect work success and satisfaction.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	88	42	Not
Mean Score	13.66	13.81	Signifi-
Standard Deviation	3.22	3.31	cant
Spring 1976			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students		59	
Mean Score		13.03	
Standard Deviation		3.58	

TABLE 7

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME V-A

V. Students will demonstrate increased competency in career decision-making skills.

A. Students will be able to associate their own abilities and limitations with possible success in present or future paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	98	69	Not
Mean Score	13.31	13.20	Signifi-
Standard Deviation	3.42	3.83	cant
Part 3 Choosing a Job			
Number of Students	96	70	Not
Mean Score	12.97	12.54	Signifi-
Standard Deviation	3.06	3.04	cant
Spring 1976			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	118	70	
Mean Score	12.05	12.39	
Standard Deviation	4.22		
Part 3 Choosing a Job			
Number of Students	99	73	
Mean Score	12.67	13.33	
Standard Deviation	3.53	2.99	

TABLE 7a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME V-A

V. Students will demonstrate increased competency in career decision-making skills.

A. Students will be able to associate their own abilities and limitations with possible success in present or future paid and unpaid work.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	88	42	Not
Mean Score	13.66	13.81	Signifi-
Standard Deviation	3.22	3.31	cant
Part 3 Choosing a Job			
Number of Students	85	44	Not
Mean Score	14.09	13.59	Signifi-
Standard Deviation	2.80	3.10	cant
Spring 1976			
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students		59	
Mean Score		13.03	
Standard Deviation		3.58	
Part 3 Choosing a Job			
Number of Students		56	
Mean Score		14.59	
Standard Deviation		1.96	

TABLE 8

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME V-B

V. Students will demonstrate increased competency in career decision-making skills.

B. Students will be able to relate their personal interests and values to types of paid and unpaid work and their associated life styles.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 3 Exploratory Occupations			
Number of Students	78	64	Not
Mean Score	1.73	1.84	Signifi-
Standard Deviation	0.25	0.25	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	98	69	Not
Mean Score	13.31	13.20	Signifi-
Standard Deviation	3.42	3.83	cant
Part 3 Choosing a Job			
Number of Students	96	70	Not
Mean Score	12.97	12.54	Signifi-
Standard Deviation	3.06	3.04	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 3 Exploratory Occupations			
Number of Students	114	73	Not
Mean Score	1.77	1.78	Signifi-
Standard Deviation	0.29	0.26	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	118	70	Not
Mean Score	12.05	12.39	Signifi-
Standard Deviation	4.22	4.36	cant
Part 3 Choosing a Job			
Number of Students	49	73	Not
Mean Score	12.67	13.33	Signifi-
Standard Deviation	3.53	2.99	cant

TABLE 8a

SUMMARY DATA FOR TWELVTH GRADE STUDENT OUTCOME V-8

V. Students will demonstrate increased competency in career decision-making skills.

B. Students will be able to relate their personal interests and values to types of paid and unpaid work and their associated life styles.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 3 Exploratory Occupations			
Number of Students	76	41	Not
Mean Score	1.78	1.79	Signifi-
Standard Deviation	0.27	0.29	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	88	42	Not
Mean Score	13.66	1.381	Signifi-
Standard Deviation	3.22	3.31	cant
Part 3 Choosing a Job			
Number of Students	85	44	Not
Mean Score	14.09	13.59	Signifi-
Standard Deviation	2.80	3.10	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 3 Exploratory Occupations			
Number of Students	94	48	Not
Mean Score	1.70	1.77	Signifi-
Standard Deviation	0.28	0.26	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yours			
Number of Students		59	
Mean Score		13.03	
Standard Deviation		3.58	
Part 3 Choosing a Job			
Number of Students		56	
Mean Score		14.59	
Standard Deviation		3.78	

TABLE 9

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME V-C

V. Students will demonstrate increased competence in career decision-making skills.

C. Students will be able to identify, locate, and utilize sources of information to solve career decision-making problems.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	84	65	Not
Mean Score	25.25	25.54	Signifi-
Standard Deviation	4.89	5.51	cant
Subscore 5 Career Planning Involvement			
Number of Students	86	64	Not
Mean Score	1.71	1.75	Signifi-
Standard Deviation	0.36	0.35	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	106	71	
Mean Score	24.34	23.69	
Standard Deviation	5.34	5.93	
Subscore 5 Career Planning Involvement			
Number of Students	105	65	Not
Mean Score	1.73	1.68	Signifi-
Standard Deviation	0.32	0.36	cant

TABLE 9a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME V-C

V. Students will demonstrate increased competence in career decision-making skills.

C. Students will be able to identify, locate, and utilize sources of information to solve career decision-making problems.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	83	42	Not
Mean Score	27.29	27.93	Signifi-
Standard Deviation	5.60	4.59	cant
Subscore 5 Career Planning Involvement			
Number of Students	79	40	Not
Mean Score	1.93	2.04	Signifi-
Standard Deviation	0.38	0.34	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	113	49	
Mean Score	26.47	27.14	
Standard Deviation	5.79	5.75	
Subscore 5 Career Planning Involvement			
Number of Students	104	54	Not
Mean Score	1.90	1.91	Signifi-
Standard Deviation	0.37	0.36	cant

TABLE 10

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOME V-E

V. Students will demonstrate increased competency in career decision-making skills.

E. Students will know the steps to be taken and factors to be considered in career planning.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	84	65	Not
Mean Score	24.34	25.54	Signifi-
Standard Deviation	5.34	5.93	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	98	69	Not
Mean Score	13.31	13.20	Signifi-
Standard Deviation	3.42	3.83	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	106	71	
Mean Score	24.34	23.69	
Standard Deviation	5.34	5.93	
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	118	70	Not
Mean Score	12.05	12.39	Signifi-
Standard Deviation	4.22	4.36	cant

TABLE 10a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME V-E

V. Students will demonstrate increased competency in career decision-making skills.

E. Students will know the steps to be taken and factors to be considered in career planning.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	83	42	Not
Mean Score	27.29	27.93	Signifi-
Standard Deviation	5.60	4.59	cant
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students	88	42	Not
Mean Score	13.66	13.81	Signifi-
Standard Deviation	3.22	3.31	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 4 Career Planning Knowledge			
Number of Students	113	49	
Mean Score	26.47	27.14	
Standard Deviation	5.79	5.75	
CAREER MATURITY INVENTORY			
Part 1 Knowing Yourself			
Number of Students		59	
Mean Score		13.03	
Standard Deviation		3.58	

TABLE 11

SUMMARY DATA FOR NINTH GRADE STUDENT OUTCOMES V-F

V. Students will demonstrate increased competency in career decision-making.

F. Students will demonstrate active involvement in career decision-making.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 5 Career Planning Involvement			
Number of Students	86	64	Not
Mean Score	1.71	1.75	Signifi-
Standard Deviation	0.36	0.35	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 5 Career Planning Involvement			
Number of Students	105	65	Not
Mean Score	1.73	1.68	Signifi-
Standard Deviation	0.32	0.36	cant

TABLE 11a

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOMES V-F

V. Students will demonstrate increased competency in career decision-making.

F. Students will demonstrate active involvement in career decision-making.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 5 Career Planning Involvement			
Number of Students	79	40	Not
Mean Score	1.93	2.04	Signifi-
Standard Deviation	0.38	0.34	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 5 Career Planning Involvement			
Number of Students	104	54	Not
Mean Score	1.90	1.91	Signifi-
Standard Deviation	0.37	0.36	cant

TABLE 12

SUMMARY DATA FOR TWELFTH GRADE STUDENT OUTCOME VII-A

VII. Students will demonstrate work-seeking and work-getting skills.

A. Students will be able to identify, locate, and utilize sources that contain information about existing paid and unpaid work possibilities.

	Career Education Students	Control Students	Significance of Difference
Spring 1975			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 5 Career Planning Involvement			
Number of Students	79	40	Not
Mean Score	1.93	2.04	Signifi-
Standard Deviation	0.38	0.34	cant
Spring 1976			
ASSESSMENT OF CAREER DEVELOPMENT			
Subscore 5 Career Planning Involvement			
Number of Students	104	54	Not
Mean Score	1.90	1.91	Signifi-
Standard Deviation	0.37	0.36	cant